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**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
ENVIRONMENTAL IMPACT  
STATEMENT  
PREPARED BY  
THE BUREAU OF LAND MANAGEMENT**



**PROPOSED 1980 OUTER CONTINENTAL SHELF  
OIL AND GAS LEASE SALES A62 AND 62**

**GULF OF MEXICO**

**FINAL EIS**

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January 15, 1980

#### ERRATA SHEET

The following changes should be made to the Final EIS for Sales A62 and 62:

Page 2 — Modification B-3 — All references on lines 3 through 5 to A62-79 and A62-80 should be changed to 62-79 and 62-80.

Page 15 — Modification B-6 — Change the figures in the second sentence of the description as follows: These 44 tracts (29 Louisiana tracts A62-3, 4, 8, 38, 39, 97-101, 123-126, 131, 137-141, 144 and 148-155 and 15 Texas tracts 62-6, 8, 14, 25-27, 36, 37, 39-41, 48, 50, 51 and 75) are located . . . Overlay).

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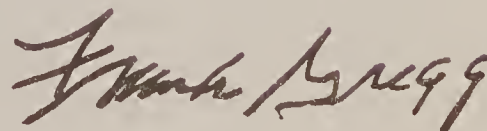
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## SUMMARY PROPOSED OCS LEASE SALES A62 & 62

### *Preface:*

This Final Environmental Statement (FES) for OCS Sales A62 and 62 revises the Draft Environmental Statement (DES) prepared for these sales and released on September 28, 1979. The DES has been incorporated by reference as an integral part of the FES. Both documents must be read for a complete understanding of the environmental effects of the proposed sales.

( ) Draft                      (X) Final

### *Lead Agency:*

Department of the Interior  
Bureau of Land Management

### 1. Type of Action

(X) Administrative              ( ) Legislative

### 2. Brief Description of Action

This statement covers two proposed oil and gas lease sales (A62 and 62) in the Central and Western Gulf of Mexico. The sales are comprised of 272 tracts totalling an estimated 1,365,543 acres, in water depths of 4 to 700 meters at distances ranging from 3 to 104 nautical miles from shore. Of these 272 tracts, there are 192 tracts totalling 915,838 acres in Sale A62 offshore Louisiana and 80 tracts totalling 449,705 acres in Sale 62 offshore Texas.

Originally, the DEIS listed and analyzed the impacts of 296 tracts totalling 1,517,787.37 acres off the coasts of Texas, Louisiana, Mississippi, Alabama and Florida. Since publication of that statement, several changes have occurred which are summarized below.

### 3. Summary of Changes

Several changes occurred shortly after the publication of the DEIS which were summarized in a correction sheet issued on October 8, 1979. Likewise, other developments have caused the deletion or restructuring of modifications. Modified resource estimates have been received from the USGS which resulted in revised tables, percentages, etc. These changes are outlined below.

#### a. Tracts Proposed for Leasing

There are now a total of 272 tracts for both sales. Originally there were 296; our correction sheet indicated that 37 tracts in the Destin Dome Area and tract A62-222 (Block 648, West Cameron Area) had been deleted and that seven tracts previously offered in Sale 58 were also added. Subsequent to that, a decision was made to include six tracts which were previously offered in Sale 58A, bringing the total number of tracts to the present 272. Appendix A, Proposed Tract List, has been revised to reflect these changes.

#### b. Changes to Sale Modifications

(1) Modification B-1, "Delete 5 Tracts Involved in Legal Controversy," is no longer a viable option. The legal controversy in question has been resolved.

(2) Modification B-2, "Delete 37 Tracts in Destin Dome Multiple Use Area Which Also Have Potential Live Bottoms," is also no longer a viable option because these tracts have now been deleted from the proposed sale.

(3) Modification B-3, "Delete 10 Tracts in Areas Requiring Biological Protection," has been increased to 14 tracts. They have been re-evaluated by the USGS and new resource estimates have been received. Two of these 4 tracts have been added to this modification from Sale 58A. (Tracts A62-79 and A62-80). For detailed description and analysis of these tracts, refer to FEIS 58A, p. 162. The biological stipulations and drawings specific to Tract A62-79 (previously Tract 58A-115) and Tract A62-80 (previously Tract 58A-118) are printed on pp. 217-222 of that same FEIS. It is believed there will be minimal additional environmental impacts to this modification because of these four additions.

(4) Modification B-4, "Delete 6 Tracts Due to Geologic Hazards" - Recently completed studies by the USGS indicate that all or part of 32 tracts may be subject to potential geologic hazards. This sale modification has therefore been expanded to include the following tracts:

<i>West Cameron</i>	<i>Main Pass</i>
Tract A62-37	Tract A62-141
<i>Vermilion</i>	Tract A62-144
Tract A62-54	<i>Ewing Bank</i>
<i>South Marsh Island</i>	Tract A62-166
Tract A62-70	<i>Mississippi Canyon</i>
<i>Eugene Island</i>	Tract A62-167
Tract A62-96	<i>Green Canyon</i>
<i>Grand Isle</i>	Tracts A62-168
Tract A62-128	through A62-184
<i>West Delta</i>	<i>Corpus Christi</i>
Tract A62-136	Tract 62-74
<i>South Pass</i>	
Tracts A62-137	
through A62-140	

The estimated potential resource reduction as compared with Alternative A, if this modification is adopted, is 1.8-3.6 million barrels of oil and 0.04-0.11 trillion cubic feet of gas. The environmental consequences are still considered minor; it is believed the geologic stipulation described below will work to eliminate the potential for problems due to geologic hazards.

(5) Modification B-5, "Delete 24 Tracts Located on the Continental Slope," has been decreased in number to 18 tracts because the baseline water depth for this modification was changed to 300 m to correlate with the depth considered by the EPA and others. These 18 tracts were included in the 24 analyzed for environmental impacts in the DEIS. Dropping these 6 tracts (A62-168 through A62-173) has lessened the environmental impacts associated with this modification.

(6) Modification B-6, "Delete 43 Tracts in a Special Coordination Area," has been changed to 44 tracts. This additional tract (62-75) is the Federal portions of Blocks 438 and 439 in Brazos Area. The addition of this tract does not change the environmental impacts as indicated in the DEIS.

Because of these changes, resource and development estimates for each modification have been revised by the USGS and are presented in tables 1, 2, 3 and 4.

#### c. Changes to the Text in Response to Review Comments

As a result of review comments received (Chapter VII), the following changes should be made to the DEIS pages indicated:

(1) Page 6 — Delete the portion of the sentence on line 27, "It is understood . . . are met; . . ." to read "No action will be taken by EPA as long as the appropriate discharge permit application has been filed; however, EPA . . . marine sanctuary)."

(2) Page 20 — Paragraph 4 should be changed as follows: *Biological Resources Protection for Sackett Bank*. (To be included only in leases resulting from this proposed sale for Tracts A62-133 through A62-136.)

Table 1<sup>1/</sup>

## Summary of Resources and Development

	Low	Conditional Probability Mean	High
<b>A. RESOURCES</b>			
1. Total Production			
a. Oil (million barrels)	15.7	23.2	29.9
b. Gas (trillion cubic ft.)	.452	.746	1.08
2. Daily Peak Production			
a. Oil (barrels)	7,500	12,500	16,500
b. Gas (million cubic ft.)	160	260	350
<b>B. DEVELOPMENT</b>			
1. Wells			
a. Exploratory	55	110	215
b. Delineation	55	110	215
c. Development	55	90	120
2. Platforms	9	15	20
3. Subsea Completions	1	5	7
4. Pipelines (miles)	100	200	350
5. Terminals/Storage	1	2	3
<b>C. COSTS (MILLION \$)</b>			
1. Wells			
a. Exploratory	\$ 100	\$ 200	\$ 350
b. Delineation	100	200	350
c. Development	55	90	120
2. Platforms <sup>2/</sup>	430	840	1,240
3. Pipelines	60	120	210
4. Terminals/Storage	5	10	15
TOTAL	\$ 750	\$1,460	\$2,285

Source: USGS, 1979.

1/ Revises DEIS Table 1.

2/ Includes costs for subsea completions.

Table 2<sup>1/</sup>

## Estimated Development Timetable (5%-M-95%)

	Exploratory	WELLS Delineation	Development	Platforms	Subsea <sup>2/</sup> Completions	Pipelines (Miles)	Terminals/ <sup>3/</sup> Support	Beginning Production
1981	5-10-20	5-11-20	0- 0- 2	0-0-0		0- 0- 9		2%
1982	11-22-43	11-22-43	5- 8-10	0-1-1		10-20-20		10%
1983	17-33-68	17-33-68	5- 8-11	1-2-3		10-20-45		20%
1984	11-22-43	11-22-43	5- 9-12	1-2-3		10-20-45		30%
1985	11-22-41	11-22-41	10-15-20	2-3-4	1-2-2	10-20-45		40%
1986			15-20-25	2-3-4	0-2-2	10-20-45	1-1-1	50%
1987			15-20-25	3-4-5	0-1-3	20-40-90	0-1-1	70%
1988			5-10-15			30-60-135	0-0-1	90%
1989								100%
TOTAL	55-110-215	55-110-215	55- 90-120	9-15-20	1-5-7	100-200-350	1-2-3	

Source: USGS, 1979.

1/ Revises DEIS Table 2.

2/ and 3/ USGS supplied only the total estimates.

Table 3

## Comparison of Resource and Development Estimates

	Alternative A**	B-3 Biological	B-4 Geological Hazards	B-5 Continental Slope	B-6 Coordination Zone
Tracts/percentages	259 - 100% (296 - 100%)	14 - 5.4% (10 - 3.4%)*	32 - 12.3% (6 - 2.0%)*	18 - 6.9% (24 - 8.1%)*	44 - 17% (43 - 14.5%)*
Resource	L(5%) - H(95%)				
Oil (mil bbls)	15.7 - 29.9 (16.4 - 49.2)	0.6% - 2.8%* (2.1%)*	11.5% - 12%* (4.3%)*	22.9% - 26.7%* (4.2%)*	15.9% - 39%* (20%)*
Gas (tcf)	0.452 - 1.08 (0.422 - 1.04)	2.4% - 11.3%* (3.9%)*	8.8% - 10.2%* (1.9% - 2.4%)*	5.0% - 5.5%* (9.5%)*	14.4% - 29%* (17%)*
Wells	110-430 (120-450)	6-20 (4-15)*	12-50 (2-9)*	10-36 (9-36)*	22-88 (17-65)*
Platforms	9-20 (10-30)	1-2 (1-2)*	1-2 (1-2)*	1-3 (1-3)*	2-7 (4-5)*
Pipelines (miles)	100-350 (100-450)	5-10 (3-20)*	11-41 (2-9)*	15-60 (8-60)*	20-70 (14-65)*

Note: Alternative A estimates are based upon revised USGS estimates for 259 tracts. Since receiving these estimates, 13 additional tracts have been added to this proposal; therefore, these estimates are about 3 to 7% low.

\* BLM estimates (62 DEIS).

\*\* Alternatives C and D estimates are the same as Alternative A.

Source: USGS/BLM, 1979.

Table 4<sup>1/</sup>

## Gulf of Mexico OCS Activities Summary (1954-1978)

	Louisiana	Texas	MAFLA <sup>2/</sup>
Exploration Permits			
1963-1969	1,417	673	188
1970-1978	1,819	765	256
Leases			
1954-1978	1,961	722	141
Well Status			
Total Wells	14,216	1,354	134
Wells Completed	7,758	417	34
Plugged/Abandoned	6,034	716	94
Active/Shut-in	7,241	320	40
Production/Value			
Oil & Condensate (10 <sup>6</sup> bbls)	4,653.0	23.8	0
Gas (10 <sup>6</sup> mcf)	37,644.0	1,629.4	0
Gasoline & LPG (10 <sup>6</sup> gal)	14,479.9	449.9	0
Production Value (10 <sup>6</sup> \$)	\$39,060.9	\$ 742.6	0
Royalty Value (10 <sup>6</sup> \$)	\$ 6,333.5	\$ 121.4	0

1/ Revises DEIS Table 5.

2/ Mississippi, Alabama, Florida

Source: "OCS Statistics," USGS, June 1979.

“c. Operations within the area shown as “3 Mile Zone” in figure 6 shall be restricted as specified in either (1) or (2) below at the option of the lessee.

(1) All drill cuttings and drillings fluids must be disposed of by shunting the material to the bottom through a downpipe that terminates an appropriate distance, but no more than ten meters, from the bottom.

(2) The operator (lessee) shall submit a monitoring plan as part of the exploration and development and production plans. The monitoring plan will be designed to assess the effects of oil and gas exploration and development operations on the biotic communities of the nearby banks.

The monitoring program shall indicate that the monitoring investigations will be conducted by qualified independent scientific personnel and that these personnel and all required equipment will be available at the time of operations. The monitoring team will submit its findings to the Supervisor on a schedule established by the Supervisor, or immediately in case of imminent danger to the biota of the bank resulting directly from drilling or other operations. If it is decided that surface disposal of drilling fluids or cuttings presents no danger to the bank, no further monitoring of that particular well or platform will be required. If, however, the monitoring program indicates that the biota of the bank is being harmed, or if there is a great likelihood that operation of that particular well or platform may cause harm to the biota of the bank, the Supervisor shall require shunting as specified in (1) above or other appropriate operational restrictions.”

(3) Page 24 — Paragraph c should be changed as follows: “Summary evaluations for potential geologic hazards have been completed for 221 tracts on Lease Sale A62 and 74 tracts on Lease Sale 62 using high resolution geophysical data. As a result of these evaluations, it is recommended that stipulations be applied to thirty-one tracts in Sale A62 and one tract in Sale 62. All or substantial portions of these tracts have potentially unstable conditions that would affect drilling operations. The stipulation will serve to notify the lessee of these conditions and alert the Supervisor of potential problems. Detailed site-specific surveys and possibly soil testing would be required prior to exploratory drilling to evaluate these unstable conditions. The following is a brief geologic description of these tracts.

#### *Sale A62*

(1) West Cameron Area, Block 646 (Tract A62-37): Large mud mounds and possibly gas seeps occur on this tract. Three mounds are located on the upthrown sides of two surface faults in the southern quarter of the tract. The largest of these mounds has a surface relief of 36 feet. High amplitude seismic anomalies (bright spots) are associated with the faulting. These anomalies are often indicative of gas. Probably other mounds will be located by a closer spaced survey.

(2) Vermilion Area, Block 305 (Tract A62-54): The dominant feature in this tract is Sonnier Bank, a surface-piercing, diapiric structure which is situated in the central and northwestern two-fifths of the tract. Numerous smaller mounds occur around the bank.

(3) South Marsh Island Area, Block 198 (Tract A62-70): Mud mounds, fault scarps, and shallow gas occur in the south half of this tract. In the southeast quarter, mounds which overlie the fault scarps are 70 to 80 feet high. Smaller mounds cover most of the rest of the south half. There are bright spots associated with the faulting.

(4) Eugene Island Area, Block 396 (Tract A62-96): Mud mounds, gas features and fault scarps abound on this tract. Most of the mounds occur on the north half of this block. Pockmarks (craters) also occur in the southern half.

(5) Grand Isle Area, Block 91 (Tract A62-128): This tract borders the Mississippi Canyon. Water depths increase from 233 to 520 feet. In the northern quarter, the seafloor slopes steeply into the Canyon. Slumping, faulting, and folding occur along the Canyon edge. The canyon has been eroded to a depth of at least 1,000 feet. Near-surface sediments are probably moving downslope into the Canyon. The northern quarter of this tract probably should be avoided as a drilling site.

(6) West Delta Area, Block 148, (Tract A62-136): Sackett Bank, which overlies a shallow salt dome, occupies the center of this tract. The bank has a relief of 121 feet, and is relatively steep-sided with faulting on the south flank. Areas of carbonate may occur at the seafloor.



(7) South Pass Area, Blocks 35, 38, 45 and 56 (Tracts A62-137 through A62-140) and Main Pass Area, Blocks 77 and 150 (Tracts A62-141 and A62-144): Geologic conditions within all these tracts are similar. Large volumes of sediment are discharged by distributary channels of the Mississippi Delta. Gullies have formed out to a water depth of at least 200 feet. Most sediment is transported by these gullies to deeper water. Sediment in the gullies exhibit flow characteristics. Some large blocks are moving through the gully system. In deeper water there is a transition zone as the gullies gradually end and gaseous lobes of sediment spread and coalesce over the shelf. Small rotational faults occur along the gully walls. All tracts are subject to mass movement.

Older surveys show the gullies have not changed form significantly. Movement probably occurs at a relatively slow rate. Drilling operations have been successful in similar conditions by using locations between the gullies and using slide-resistant platforms.

(8) Ewing Bank Area, Block 304 (Tract A62-166): Sediment creep into Mississippi Canyon occurs in the southern three-quarters of the tract. The seafloor exhibits a folded hummocky character and truncated, upturned reflectors along the canyon edge are gaseous. The most stable conditions occur in the northwest corner.

(9) Mississippi Canyon Area, Block 149 (Tract A62-167): This tract is on the continental slope south of the Mississippi Delta. A mud flow covers the northeast quarter of the tract and a large, arcuate, buried slump zone formed by a series of down to the south faults occupies the south half. Some fault blocks have rotated and slid downslope along a bedding plane. The northwest quarter of the tract is the most stable.

(10) Green Canyon Area, Blocks 89-91, 133-140 and 179-184 (Tracts A62-168 through 184): Water depths in this area, which are located on the continental slope, range from 218 to 2,475 feet. The shallower water is on Sweet Bank in Green Canyon Block 90, while the deepest is in Green Canyon Block 181. Salt-related features dominate in this area and include 3 near-surface diapirs (Phleger Bank in Green Canyon Block 133, Sweet Bank in Green Canyon Blocks 90, 91, 134, 135, and a seafloor high with 550 feet of relief centered in Green Canyon Block 140) and a deep-seated salt ridge trending east-west through the center of the area (Green Canyon Blocks 135-139 and 180-184). Centered over this salt ridge is an east-west trending graben system with large deep-seated faults and surface scarps more than 100 feet high. Many smaller active faults are also associated with the graben system. The bathymetric high centered in Green Canyon Block 140 is severely faulted and displays a very irregular seafloor with slopes of more than  $10^{\circ}$  in Green Canyon, Blocks 140 and 184. Slumped and/or unstable sediments occur in the east half of Green Canyon Blocks 140 and 184 and throughout the south half of the areas (Green Canyon Blocks 179-184). Both Sweet and Phleger Banks have steep slopes (greater than  $5^{\circ}$ ), and active faults associated with them but the area around the banks appears stable. Steep slopes throughout the rest of the area may be prone to failure. The north halves of Green Canyon Blocks 136-139 also appear relatively stable as the shallow sediments are mildly deformed and there are only a few near-surface faults in the area. Possible degassing features (small mounds) are located in the south half of Green Canyon Block 136 and in the northwest quarter of Green Canyon Block 184 and the southwest corner of Green Canyon Block 140.

#### *Sale 62*

(1) Corpus Christi Area, Block 744 (Tract 62-74): A lease stipulation is recommended for Tract 74 because of apparent sediment creep in the southeast half. The seafloor dips southeast at 54 feet per mile and exhibits a low, hummocky, possibly folded topography. Bathymetric relief is approximately 2 to 6 feet with wave lengths of 700 to 1,200 feet, both increasing seaward. Below the seafloor, to a depth of 50 feet, there is an amorphous layer. Below this layer reflectors repeat the hummocky character. A closely spaced geophysical survey is necessary to determine the true nature of the seafloor morphology and its potential as a physical constraint to exploration and production activities.

In order to mitigate the above hazards, the following stipulation will be made a part of any lease resulting from this proposed sale for the tracts indicated:

*Potential Geologic Hazards Stipulation:* (To be included only in leases resulting from this proposed sale for Tracts A62-37, A62-54, A62-70, A62-96, A62-128, A62-136 through A62-141, A62-144, A62-166 through A62-184, and 62-74.)

All or portions of this tract may be subject to mass movement of sediments, unstable slopes, shallow faults, or gaseous sediments. Exploratory drilling operations, emplacement of structures (platforms) or sea-floor wellheads for production or storage of oil or gas, and the emplacement of pipelines will not be allowed within the potentially unstable portions of this lease block unless or until the lessee has demonstrated to the Supervisor's satisfaction that mass movement of sediments is unlikely or that exploratory drilling operations, structures (platforms), casing, wellheads and pipelines can be safely designed to protect the environment in case such mass movement occurs at the proposed location. This may necessitate that all exploration for and development of oil or gas be performed from locations outside of the area of unstable sediments, either within or outside of this lease block.

If exploratory drilling operations are allowed, site-specific surveys shall be conducted to determine the potential for unstable bottom conditions. If emplacement of structures (platforms) or seafloor wellheads for production or storage of oil or gas are allowed, all such unstable areas must be mapped. The Supervisor may also require soil testing before exploration and production operations are allowed."

(4) Page 52 — A sentence is added to the end of the paragraph one, "Eddies may also break off from the loop current, intermittently affecting the shelf regions of the northeastern and eastern GOM." Additionally, the second sentence in paragraph 4, "During . . . Delta" is deleted and replaced by "The Loop Current extends far into the northern GOM, especially during the summer months."

(5) Page 53 — The first sentence of paragraph 3 should read as follows: "Due to favorable synoptic conditions that exist in the GOM, easterly waves and tropical storms appear there, starting in the early summer months."

(6) Page 69 — A sentence is inserted before the last sentence in the first paragraph under IV.A.1.a. to read as follows: "Toxicity of drilling muds or drilling muds components to marine organisms is not well understood, but is an area of ongoing research."

(7) Page 75 — A sentence is inserted after the fourth line, following the sentence, "Since 1964 . . . Federal waters." to read as follows: "A tropical storm during the fall of 1979 exacerbated the impact of the Pemex Ixtoc-1 oil spill by bringing more oil onshore than would have normally been the case."

(8) Page 96 — In paragraph d, change to ". . . Delete 32 Tracts . . ." instead of ". . . Delete 6 Tracts . . ."

(9) Page 96 — Change paragraph (1) *Description* to read as follows: "These 32 tracts are known to contain unstable bottom sediments which can be hazardous to oil and gas exploration and development activities. (See the geologic stipulation above for a tract specific description of these areas.)"

This modification is estimated to reduce the oil/gas development activities assumed for Alternative A by the following amounts: the drilling of 12-50 exploratory and delineation wells; installation of 1-2 platforms; 11-44 miles of pipeline; typical amounts of discharged drilling muds and cuttings and formations waters into the Gulf waters."

(10) Page 97 — Change *Conclusion* to read as follows: "The environmental effects associated with this modification are very slight for employment and recreational fishing because of the few number of tracts involved. This deletion option will not significantly alter the environmental consequences for Alternative A. This modification would preclude the domestic production of about 1.8-3.6 million barrels of oil and 0.04-0.11 trillion cubic feet of gas estimated for Alternative A. The loss of this production represents a lost opportunity to lessen our dependence of foreign oil importation."

(11) Page 111 — After entry for "Koons, C. B. . . ." add new entry: "Mabrey, E. L., Deuel, D. G.; and Kirsch, A. D. 1977. Participation in marine recreational fishing, southeastern United States, 1974. Washington, D. C., U. S. Department of Commerce, NOAA, NMFS (Current Fisheries Statistics No. 7333)."

— In the next entry, change "Mabry" to "Mackin."

d. All visuals for the eastern Gulf of Mexico are no longer applicable, and any analysis or reference to the Destin Dome Area or the Florida Panhandle should be deleted since the DEIS is still the basic document of this FEIS.

e. Chapter VII contains some minor changes to the DEIS, as a result of comments received. They have been indicated in our responses and should be notated in your DEIS copy.

f. Appendix "C", entitled "Archeological Report Standards," has been revised and re-titled "Standards for Adequate Archeological Assessment." This appendix has been changed as a result of information from USGS, Metairie, that they do not plan to revise the Notice to Lessees for the Gulf of Mexico at this time. In lieu of the original document, this new appendix describes what information the BLM will require for their cultural resource survey assessments.

g. Harold Key and Ronald Druva, Economists, should be added to the list of principal preparers.

#### 4. Scoping and Consultation

As part of the scoping process envisioned in CEQ's regulations, a series of public meetings and consultations with various Federal, State and local governmental agencies was held prior to preparing the draft EIS for OCS Sales A62 and 62 (see Chapter VII). The purpose of this scoping was to identify major environmental issues and concerns regarding the proposed action, and the definition of alternatives appropriate for consideration and analysis in the EIS as possible options or modifications to the proposal. The EIS focuses on these issues and alternatives, as listed below. Scoping for OCS Sales A62 and 62 identified the following environmental issues of primary concern:

- (1) Employment
- (2) Shoreline Recreational Resources
- (3) Recreational Fishing
- (4) Endangered Species
- (5) Fisheries Resources
- (6) Air Quality
- (7) Water Quality

These issues form the basis for the environmental analysis in the FES. A further issue -- Destin Dome Multiple Use Area -- identified and evaluated in the DES has been resolved, since the tracts at issue have been withdrawn from leasing consideration. Accordingly this discussion has been dropped from the EIS.

Several proposal alternatives were also identified as appropriate for evaluation in the draft statement (DES, p. 31). Because the tract list modifications discussed earlier now alter the group of alternative presented in the DES, alternatives considered in the FES are now limited to the following:

- A. Hold the Sale as Proposed
- B. Modify the Sale
  - B-3, "Delete 14 Tracts in Areas Requiring Biological Protection"
  - B-4, "Delete 32 Tracts Due to Geologic Hazards"
  - B-5, "Delete 18 Tracts Located on the Continental Slope"
  - B-6, "Delete 44 Tracts in a Special Coordination Area"
- C. Delay the Sale
- D. Cancel the Sale

Although it is recognized that other alternatives and environmental effects may be involved in these areas, they are not detailed in the FES because they were not identified in the scoping process as having major significance.

#### 5. Basic Development Assumptions

Given the resource estimates in table 1 (Part A), development and costs incurred are expected as given in Parts B and C. (Activities are described in FEIS 58A, Section I.A.3.) Table 2 provides an estimated development timetable. (Both of these tables are attached.)

Based on these tables, statistical data on past spills, and scenarios considered reasonable and appropriate for environmental impact assessment, several development assumptions were made by GS and BLM:

- (1) no additional onshore support facilities or refineries would be necessary;
  - (2) a maximum of two onshore terminals or storage facilities would be located in the vicinities of Corpus Christi, Texas (just north of Padre Island National Seashore) and Caillou, Louisiana (between Houma and Morgan City);
  - (3) a maximum of two pipeline landfalls located in those same areas, with a total mileage ranging from 100 to 350 miles; and,
  - (4) one major oil spill greater than 1,000 barrels during sale production (excepting all tracts offshore the state of Texas, which are considered gas prone); and 1 and 2 minor oil spills are assumed to occur annually, and averaging less than 100 barrels, randomly distributed among the oil prone lease sale tracts.
- The environmental consequences section is based on these assumptions.

## 6. Major Alternatives and Environmental Consequences

In comparing the alternatives to holding this sale see table 2 which represents impacts to the specific alternatives and discrete areas addressed. It should be noted that Alternative A (Holding the Sale), Alternative C (Delay the Sale) and Alternative D (Cancel the Sale) are regional actions and each include the entire sale area. The basic difference between Alternative C and Alternative D is that tracts are held in abeyance for an extended period of time when delaying (as opposed to withdrawal) and can have short-term effects (depending on the length of delay) as opposed to the long-term effects of a cancellation. Alternative B (Modification) is comprised of four discrete tract groups within the sale area which, for one reason or another, are subject to possible deletions at the discretion of the Secretary of the Interior.

### *Alternative "A" - Hold the Sale as Proposed*

#### a. Description

Holding this sale as proposed will result in the continuation of the ongoing oil/gas exploration, development and production activities in the Gulf of Mexico.

This proposal will increase domestic production by 23.2 millions barrels of oil. At current U.S. oil consumption rates, the oil produced would be equivalent to about a one-day supply, or about 3 days of imported oil at a rate of 7.9 million barrels of oil per day. Likewise, an estimated 746 billion cubic feet of natural gas would be produced.

This is judged to be a gain for the United States from both a standpoint of energy needs and the economic and political goals of independence from energy imports which contribute to a balance of payments deficit.

#### b. Summary of Environmental Consequences

*Impact on employment* — A considerable amount of employment (job opportunities) will be generated, which could have a beneficial impact, particularly at the local level, by reducing the potential level of unemployment. New resident population induced by this employment will result in small increases in the demand for housing, education and other public services. It is expected these increased demands can be met without significantly lowering existing service levels or standards.

*Impact on Air Quality* — The Secretary of the Interior is legally bound to control air pollution from OCS oil/gas activities which significantly affects the ambient air quality of coastal states. Furthermore, all onshore operations which result from this proposal would be required to meet all Federal, state and local air quality standards. These legal requirements, coupled with the fact that the proposed sale would continue the pattern of replacing existing production rather than adding to it, support a conclusion that there would be no cumulative effect on air quality and only slight, if any, localized air quality degradation in the vicinity of terminal/storage facilities.

*Impact on Water Quality* — There could be some localized short-term effects from oil spills and blowouts, as well as from normal activities, related to the proposed sale. These effects would include turbidity and the introduction of other pollutants, which are difficult to quantify partly because no significant water quality degradation resulting from OCS oil and gas operations in the Gulf of Mexico has been observed. In any event, Federal regulations should mitigate any impacts.

*Impact on Fisheries Resources* — There is no evidence available to indicate that OCS oil/gas operations in the Gulf of Mexico adversely affect fisheries resources. Area fisheries are dominated by species associated with estuaries, which are more sensitive to oil spills than the open ocean, and any major adverse impacts over the years would almost certainly have affected these fisheries. Platforms and pipelines apparently have had a favorable effect on snapper-grouper fishing because they serve as artificial reefs.

*Impact on Endangered Species* — Formal consultations with the Fish and Wildlife Service and the National Marine Fisheries Service regarding Gulf of Mexico OCS oil/gas activities have generated opinions that the proposed sale would not jeopardize the continued existence of the endangered or threatened species considered in the consultations. However, while there is no historical evidence of a measurable impact to these species, there is a possibility of a localized impact to certain discrete populations of brown pelicans from oil spills and onshore construction activities.

*Impact on Shoreline Recreational Resources* — The proposed sale would probably cause low level intermittent physical pollution and some minor degradation of aesthetic values, which would most likely affect beachfront recreationists and contribute to maintenance problems of shorefront beach and park administrators. This impact would be a nuisance to some beach users, but is unlikely to affect the level of use unless oil actually appears on the beach from an oil spill.

*Impact on Recreational Fishing* — Offshore recreational fishing would be enhanced by this proposal. This conclusion is based on the impacts already demonstrated at approximately 2,500 existing structures situated offshore.

#### *Alternative "B" - Modify the Proposal Via Tract Deletions*

The proposed sale could be modified by deleting tracts in any one or all of four discrete groups located within the proposed sale area. The purpose for deleting these discrete groups of tracts is to avoid or mitigate potential adverse impacts from biological and engineering concerns, geological hazards and coordination zone conflicts. Each of these modifications is discussed below. For more detailed information, refer to section II.3. through B-6 of the DEIS.

Deleting these tracts from this proposed sale would tend to reduce the overall risk of possible impacts that could occur if the tracts were developed. Conversely, deletion would reduce the overall oil/gas production resulting from these tracts and have a negative impact on socio-economic parameters, with a loss of bonus royalty, and investment monies ordinarily associated with leased tracts.

Modification B-1, "Delete 5 Tracts Involved in Legal Controversy," is no longer a viable option for deletion.

Modification B-2, "Delete 37 Tracts in Destin Dome Multiple-Use Area Which Also Have Potential for Live Bottom," is also no longer a viable option for deletion.

Modification B-3: "Delete 14 Tracts in Areas Requiring Biological Protection"

a. Description

As indicated in the Summary of Changes, 4 tracts have been added to this modification. These 14 tracts (A62-53 through A62-57, A62-62, A62-104, A62-133 through A62-136, 62-69, 62-79 and 62-80) are located off the Texas and Louisiana coasts at 6 separate locations which are on or near biologically sensitive areas (topographic highs) rising out of deep water near the continental shelf break (see visual and Tract Overlay). They are estimated to contain about 2-11 percent of the total gas reserves and about 0.6-3 percent of the total oil reserves estimated for Alternative A.

b. Summary of Environmental Consequences

Modification B-3 will result in the environmental effects discussed for Alternative A except as follows:

- (1) A slight decrease in employment and related potential benefits.
- (2) A slight reduction in the possible occurrence of somewhat negative, localized and short-term effects on community infrastructure resources.
- (3) Preclusion of environmental effects on air and water quality from the deleted tracts.
- (4) A slight reduction in fishing opportunities.
- (5) Preclusion of any environmental effects which could result from oil and gas development activities in the deleted tracts.

Modification B-4: "Delete 32 Tracts Due to Geologic and Engineering Hazards"

a. Description

Two dynamic geologic conditions prevail in the Gulf of Mexico which may critically impact petroleum exploration and development:

- a) salt movement resulting in domes, faults, steep slopes, gas seepage and sediment slumping; and
- b) rapid sedimentation in deltaic areas that result in underconsolidated, fine grained, often gas-charged sediments which can flow and slump on very low slope gradients.

The affected tracts and their estimated potential resources are identified in Section 3.b.(4). and detailed descriptions given in Section 3.c. above.

b. Summary of Environmental Consequences

All of the effects listed under Alternative A will occur except as follows:

- (1) A slight decrease in employment and related potential benefits.
- (2) A very slight reduction in recreational fishing opportunities.
- (3) The modification would also preclude any environmental effects to the deleted tracts (or other affected areas) which could result from well drilling, rig and platform installation, pipeline laying and production activity in these areas of possible bottom sediment instability.

## 5. Modification B-5: "Delete 18 Tracts Located on the Continental Slope"

### a. Description

#### *Corpus Christi*

Tracts 62-72 through 62-74

#### *Viosca Knoll*

Tracts A62-162 through A62-165

#### *Green Canyon*

Tracts A62-174 through A62-184

(Tracts A62-168 through A62-173, which lie in waters shallower than 300m, have been dropped from this modification.)

As indicated in the Summary of Changes, this modification now involves 18 tracts instead of 24. These tracts are located on the continental slope in water depths between 300-700 m and are estimated to contain 5 percent gas and 23-27 percent oil of the total estimate given for Alternative A.

Concern has been expressed by EPA and others about adequate deepwater technology and operating regulations. In this regard, USGS is establishing a Platform Verification Program to ensure that offshore oil and gas structures are designed, constructed and installed using standardized procedures to prevent structural failure. This will be especially useful in frontier and deepwater areas. Also, although subsea completion systems are not specifically addressed in this Program, preliminary studies related to subsea production systems are presently being conducted in the Gulf of Mexico.

While it is true that a separate set of OCS Orders covering deepwater tracts have not been promulgated; the USGS does maintain blanket authority of deepwater tracts on a case-by-case basis in order to establish acceptable procedures for safety and environmental protection for each specific design.

### b. Summary of Environmental Consequences

- (1) A minor decrease in employment and related benefits.
- (2) No anticipated significant effect on an already existing community infrastructure.
- (3) Air and water quality effects will be precluded.
- (4) A very slight reduction in recreational fishing opportunities.
- (5) Preclusion of any environmental effects which would have resulted from oil and gas development.

## Modification B-6: "Delete 44 Tracts in a Special Coordination Area (Buffer Zone)"

### a. Description

One additional tract has been added to this modification. These 44 tracts (22 Louisiana tracts A62-3, 4, 8, 38, 39, 97-101, 123-126, 131, 137-141, 144 and 148-155 and 22 Texas tracts 62-6, 8, 14, 25-27, 36, 37, 39-41, 48, 50 and 51) are located within 3 miles of the seaward boundary of Louisiana and Texas in water depths ranging between 4-68 meters (see visual 1 and Tract Overlay). The 44 tracts are estimated to contain about 14-29% of the gas reserves and 16-39 percent of the oil reserves estimated for Alternative A.

These tracts are subject to special coordination between the Federal government and the Governors of the states of Louisiana and Texas.

Section 8(g) of the OCSLAA requires that at the time of soliciting nominations for the leasing of lands within 3 miles of the seaward boundary of any coastal state, the Secretary shall provide the Governor with certain available information relative to any proposed leasing activities in his area and thereafter attempt to identify any oil or gas pools underlying both the OCS and the state's lands through coordination with the Governor about that area.

If any tracts are selected for leasing which may have such underlying pools, the Secretary shall offer the Governor an opportunity to enter into an agreement concerning the disposition of revenues which may be generated by a Federal lease within such area. The Governor has 90 days in which to accept or reject the offer. If he accepts, then the Secretary shall proceed accordingly. If he rejects the offer, or if the parties cannot agree as to the disposition of revenues, the Secretary has two alternatives:

- (a) he can withdraw the tracts in question from the proposed lease sale, or
- (b) he may proceed with the leasing of the area and deposit in a separate U.S. Treasury account all bonuses, royalties and other revenues attributable to oil and gas pools underlying both the OCS and state lands until such time as the parties agree on a fair and equitable disposition of such revenues, or until the matter is judicially determined.

#### b. Summary of Environmental Consequences

Modification B-6 (buffer zone tracts) will result in all the environmental effects discussed for Alternative A except as follows:

- (1) A moderate (about 14 percent) reduction in direct employment.
- (2) A moderate reduction in air and water pollution.
- (3) Removal of a potential risk to endangered brown pelicans and their habitats in southeastern Louisiana.
- (4) A moderate reduction of a potential risk to shoreline recreation resources.
- (5) A slight loss of recreational fishing enhancement.

#### *Alternative "C" - Delay the Sale*

##### a. Description

A delay of an indefinite period (between 1-2 years) would hold up production activities for the length of time the sale is delayed. This could have adverse economic impacts which would especially affect the smaller industry-related businesses and probably necessitate foreign imports to replace the lost production. (For a detailed discussion of the relationship of OCS production activities to onshore facilities and support services, employment and induced consequences, see section IV.A.3. and IV.B.1.b.) Conversely, it could allow completion of some current environmental studies in the Gulf of Mexico, possible introduction of technological improvements in OCS operations to increase resource recovery, and an extension of lead time for local governmental bodies to plan for onshore impacts.

##### b. Summary of Environmental Consequences

By delaying this proposed sale for an indefinite period of time (1-2 years), positive and negative effects would occur. On the positive side, time gained is the essential factor. This would allow additional time for environmental studies, possible resolution of inter/intra Federal and State concerns, and potential development of improved recovery techniques and safer oil and gas operations. On the negative side, oil would have to be imported by tanker during the delay period and this would increase the risk of tanker accidents and, thus, a major oil spill. Such an oil spill, and its associated impacts, could outstrip all impacts due to drilling and production presently seen for the Gulf of Mexico.

A potentially significant impact would be loss of employment and business income by all companies, both large and small, which in turn would ultimately result in loss of personal income, government revenues and services to the community. The smaller companies could be affected the most since they operate as support industries to the larger companies, providing ancillary services and supplies. Likewise, many are subcontracted by larger companies for the major phases of production activities.

For these reasons, it is difficult to assess the actual employment impacts. However, the working base of men and capital for a larger company is much more flexible. They can more easily transfer their trained personnel and investment to other production areas. Smaller companies may not be able to withstand a loss of revenue or money which is unproductive because of a delay. This includes those smaller oil companies which engage in oil production and which have incurred expenses in pre-tract nomination activities. While all industry-related companies would be adversely affected by delaying the sale for an extended period of time, it appears that the smaller company would suffer the greater impacts.

#### *Alternative "D" - Cancel the Sale*

##### a. Description

Not holding the sale would have both advantages and disadvantages. The advantages are that certain environmental losses which might result from holding the sale would not occur. The disadvantages consist of foregoing the gains which are expected to result from the sale, especially in terms of oil and gas, and also in terms of employment and income which, as indicated in Delay the Sale, affects industry-related businesses, particularly the smaller business concerns who are dependent on OCS development. This non-production would not be in accordance with national policy to become independent of foreign import of oil.

##### b. Summary of Environmental Consequences

Although no cancellation of a proposed sale has occurred in the Gulf of Mexico in over a decade, it has occurred in other OCS areas. The effects of a cancellation are very similar to those which occur when a sale is delayed for an indefinite period. A basic difference is that delaying a sale is viewed as a postponement of production, while cancelling this sale is a loss of a potential mean average of 27.1 million barrels of oil and 735 billion cubic feet of gas, with no extension of time involved.

It is estimated that a potential mean average of \$1.5 billion of investment would occur as a result of holding this sale. Part of this investment occurs in pre-tract nomination activities, such as seismic data gathering, which is specific to the sale and which may be of no immediate value if the sale is cancelled. The employment and income effects to smaller companies could be even more deleterious because of the complete loss of production.

The reader is directed to section IV of the DEIS, Environmental Consequences, for further analyses of the impacts relative to each alternative.

## 7. Consultation and Coordination

See Chapter VII.

## 8. Comments

See Chapter VII.



## Section VII

# Consultation And Coordination

VII



## VII. CONSULTATION AND COORDINATION

The new CEQ regulations require “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action which shall be termed scoping.” In order to fulfill the spirit and intent of these regulations, several scoping actions were taken as a means to obtain input as to the concerns and issues of individuals, agencies, and organizations.

A notice was published in the Federal Register about this proposed sale. Starting in January of 1979, the governor's OCS representative of each state adjoining the sale area was contacted in order to utilize their suggestions, and maximize public participation. As a result, public media announcements were issued announcing meetings subsequently held in Brownsville and Galveston, Texas; Morgan City and New Orleans, Louisiana; Gulfport, Mississippi; Mobile, Alabama; and Pensacola and Panama City, Florida. The public was invited to participate in the decision making process regarding alternatives and issues to be addressed in the impact statement.

Additionally, many federal, state, and local agencies were contacted in order to gain their input prior to the issuance of the draft EIS.

We have listed below those contacts involved in this scoping process. From these contacts and meetings the significant issues were determined that were addressed in the DEIS. They are listed in the Summary Section of this statement.

### A. Preparation of the Draft Environmental Statement

#### 1. Federal Agencies

The following Federal agencies were contacted during the preparation of this statement:

- Department of Agriculture
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
  - National Oceanic and Atmospheric Administration
    - Office of Ocean Management
    - Office of Coastal Zone Management
  - National Weather Service
  - National Hurricane Center
  - National Ocean Survey
  - National Marine Fisheries Service
- National Technical Information Service
- Bureau of the Census
- Bureau of Economic Analysis
- Department of Defense
- Department of the Air Force
- Department of the Army
  - Corps of Engineers
- Department of the Navy
  - Oceanographer of the Navy
- Department of Energy
  - Energy Information Administration
  - Federal Energy Regulatory Commission

Department of the Interior  
Office of the Solicitor  
Fish and Wildlife Service  
National Park Service  
Bureau of Mines  
Geological Survey  
Heritage Conservation and Recreation Service

Department of State

Department of Transportation

Coast Guard

Federal Aviation Administration

Materials Transportation Bureau

Department of the Treasury

Environmental Protection Agency

Nuclear Regulatory Commission

Advisory Council on Historic Preservation

Marine Mammal Commission

Gulf Regional Fishery Management Council

## 2. Consultation Under Section 7 of the Endangered Species Act

Formal consultation under Section 7 of the Endangered Species Act was held with the Fish and Wildlife and National Marine Fisheries Services. Biological opinions for this proposed sale are attached as Appendix E.

## 3. Coordination Meeting

In accordance with Department of the Interior Secretarial Order 2974, a meeting was held in New Orleans to consider stipulations for this proposed sale. Representatives of the Bureau, Geological Survey, Fish and Wildlife Service and the States of Alabama, Mississippi, Louisiana, Florida and Texas reviewed the proposed stipulations and recommended modifications. Proposals for the environmental studies program were also discussed.

## 4. State and Local Agencies

The following state and local government agencies were contacted during the preparation of this statement:

### Alabama

Office of the Governor

Development Office

State Clearinghouse

Department of Conservation and Natural Resources

Geological Survey

Historical Commission

State Historical Preservation Officer

Coastal Area Board

South Alabama Regional Planning Commission

### Louisiana

Office of the Governor

Department of Urban and Community Affairs

State Clearinghouse

Department of Natural Resources  
 Department of Culture, Recreation and Tourism  
     State Historic Preservation Officer  
 Department of Wildlife and Fisheries  
 Department of Transportation and Development  
 Council on Environmental Quality  
 Regional Planning Commission for Jefferson, Orleans,  
     and St. Bernard Parishes  
 Acadiana Regional Clearinghouse  
 Southwest Regional Clearinghouse  
 Teche Regional Clearinghouse  
 Metropolitan Regional Clearinghouse  
 Mississippi  
     Office of the Governor  
         State Clearinghouse  
 Marine Resource Council  
 Department of Archives and History  
     State Historic Preservation Officer  
 Natural Heritage Program  
 Gulf Regional Planning Commission  
 South Mississippi Planning and Development District  
 Texas  
     Office of the Governor  
         Budget and Planning  
         State Clearinghouse  
 Historical Commission  
     State Historic Preservation Officer  
     Antiquities Committee  
 General Land Office  
 Southeast Texas Regional Planning Commission  
 Lower Rio Grande Valley Development Council  
 Coastal Bend Council of Governments  
 Houston-Galveston Area Council  
 Golden Crescent Council of Governments

## 5. Consultation with State Historic Preservation Officers

In compliance with regulations issued by the Advisory Council on Historic Preservation, the State Historic Preservation Officers (SHPO's) in the Gulf states bordering this sale have been contacted at several stages during the planning process. Prior to the issuance of the draft environmental statement, the SHPO's were asked to identify important historical, archeological or cultural resources which they felt might be affected by oil and gas leasing and development on the outer continental shelf. After the draft environmental statement was published the SHPO's were asked to comment on the proposal and the draft statement.

## 6. Review of the Preliminary Draft Environmental Statement

The states of Alabama, Mississippi, Louisiana, Florida and Texas were invited to review the preliminary draft of this statement.

## B. Review of the Draft Environmental Statement

### 1. Copies of the draft environmental statement were sent to the following agencies and groups for review

#### Federal Agencies

- Department of Commerce
  - National Oceanic and Atmospheric Administration
- Department of Defense
- Department of the Air Force
- Department of the Army
- Department of the Navy
- Department of Energy
  - Federal Energy Regulatory Commission
- Department of Health, Education, and Welfare
- Department of Housing and Urban Development
- Department of the Interior
  - Office of the Solicitor
  - Fish and Wildlife Service
  - National Park Service
  - Heritage Conservation and Recreation Service
  - Bureau of Mines
  - Geological Survey
- Department of Justice
- Department of State
- Department of Transportation
  - Coast Guard
  - Federal Aviation Administration
  - Materials Transportation Bureau
- Environmental Protection Agency
- Federal Communications Commission
- Federal Maritime Commission
- Federal Trade Commission
- Interstate Commerce Commission
- National Science Foundation
- National Transportation Safety Board
- Nuclear Regulatory Commission
- Advisory Council on Historic Preservation
- Marine Mammal Commission
- Gulf Regional Fishery Management Council
- Water Resources Council

#### State and Local Agencies

BLM also works closely with the Gulf states; their expertise is invaluable in developing statements and policies, and BLM endeavors to keep the states informed of its plans and policies.

Alabama, Mississippi, Louisiana, Florida and Texas agencies with which BLM has consulted include:

#### Alabama

- Governor's Office
- Alabama Geological Survey

Alabama Development Office  
Alabama Historical Commission  
Alabama Department of Conservation  
Alabama Water Improvement Commission  
Alabama State Planning Office  
Alabama Coastal Area Board  
Tombigbee Regional Commission  
Mobile Office of Intergovernmental Relations

Mississippi

Governor's Office  
Mississippi Department of Archives and History  
Mississippi Natural Heritage Program  
Mississippi Bureau of Outdoor Recreation  
Mississippi Research and Development Center  
Mississippi Marine Resources Council  
Southern Mississippi Regional Planning Commission  
Gulf Regional Planning Commission  
Jackson County Planning Commission  
Mississippi Cooperative Extension Service  
Mississippi Marine Resources Council Advisory Committee

Louisiana

Governor's Office  
Secretary of State  
Louisiana State Historic Preservation Officer  
Department of Culture Recreation and Tourism  
Department of Transportation and Development,  
Coastal Resources Program  
Department of Wildlife and Fisheries  
Office of State Planning  
Office of Program Development  
State Mineral Board  
Louisiana Cooperative Extension Service  
Office of Science, Technology, and Environmental Policy  
Regional Planning Commission for Jefferson, Orleans,  
St. Bernard, and St. Tammany Parishes  
New Orleans City Planning Commission  
Evangeline Economic Development District  
South Central Planning and Development Commission  
Imperial Calcasieu Regional Planning Commission

Florida

Governor's Office  
Florida Institute for Oceanography  
Florida Department of Natural Resources  
Florida Department of Transportation  
Florida Department of State, Division of  
Archives, History and Records Management  
Florida Division of Economic Development  
Florida Bureau of Coastal Zone Planning  
West Florida Regional Planning Council  
Tampa Port Authority

## Texas

- Governor's Office
- Coastal and Marine Council
- Texas General Land Office
- Governor's Budget and Planning Office
- Texas Historical Commission
- Texas Antiquities Commission
- Texas Parks and Wildlife Department
- Galveston County Parks Department
- Corpus Christi Parks Department
- Texas A&M—Recreation and Parks Department
- Texas Highway Department
- Texas Legislative—Committee to Study Texas Beaches
- South East Texas Regional Planning Commission
- Lower Rio Grande Valley Development Council
- Coastal Bend Council of Governments
- Houston—Galveston Area Council
- Golden Crescent Council of Governments

## 2. Professional and Industrial Firms and Associations, Academic Institutions, and Others

Institutions, associations, and groups which were contacted for information or input include, but are not limited to, the following:

### Academic Institutions

- Auburn University (Alabama)
- Mississippi State University
- Louisiana State University
- Tulane University (Louisiana)
- University of South Alabama

### Industrial Firms

- Brown and Root
- Chevron
- Clean Gulf Associates
- Exxon
- Gulf
- J. Ray McDermott
- Offshore Operators Committee
- Shell
- Texaco
- Zapata Offshore

## 3. Public Hearing

A public hearing was held in New Orleans, Louisiana on November 15, 1979. A panel of officials from the U.S. Department of the Interior, Bureau of Land Management, Geological Survey, and Fish and Wildlife Service was formed to receive the testimony. No one testified at the hearing.

An official transcript of the hearing is available for public inspection at the Bureau of Land Management, Outer Continental Shelf Office, New Orleans, Louisiana, and Bureau headquarters in Washington, D.C.

### C. Summary of Correspondence Received Following Review of the Draft Environmental Statement

A total of 38 letters were received with comments regarding the draft statement. This included correspondence from 15 Federal agencies, 17 state agencies, 4 corporations and 2 public interest groups. Comments are numbered in consecutive order on each letter and the responses numbered to correlate thereto.

#### PUBLIC HEARING

1. Florida Institute for Oceanography
2. Southern Natural Gas Co.
3. Gulf Oil Exploration & Production Co.
4. Shell Oil Company

#### DEIS REVIEW LETTERS

1. Alabama State Oil & Gas Board
2. Louisiana Department of Natural Resources
3. Nuclear Regulatory Commission
4. Mississippi Office of the Governor
5. Alabama Historical Commission
6. Cities Service Company
7. Advisory Council on Historic Preservation
8. National Park Service
9. Mississippi Department of Wildlife Conservation
10. Offshore Operators Committee
11. Louisiana Department of Urban and Community Affairs
12. Department of the Army, New Orleans, Louisiana
13. Florida Institute for Oceanography
14. Department of Housing and Urban Development
15. Environmental Protection Agency
16. Department of Commerce
17. Heritage Conservation and Recreation Service
18. Federal Energy Regulatory Commission
19. Fish and Wildlife Service
20. Texas Office of the Governor
21. Department of the Army, Mobile, Alabama
22. Southwest Louisiana Clearinghouse Review Board
23. Coast Guard
24. Bureau of Mines
25. Geological Survey



November 13, 1979

Mr. John L. Rankin, Manager  
New Orleans Outer Continental Shelf Office  
Bureau of Land Management  
U.S. Department of the Interior  
Hale Boggs Federal Building  
500 Camp Street - Suite 841  
New Orleans, Louisiana 70130

Dear John:

It has been the policy of the State of Florida to support oil and gas operations on the Outer Continental Shelf providing the air and water environments surrounding the State are not adversely affected by such activities. The State of Florida reviewed the tentative tracts listed for the proposed Sales A62 and 62, and on June 4, 1979, Governor Graham wrote a letter to the Secretary of the Interior expressing its concerns over the lack of geological hazard studies for the 37 tracts proposed in the Destin Dome area (see attached letter). On July 13, 1979, Secretary Andrus indicated that such data would be collected prior to Notice of Sale for A62 and 62.

The State of Florida has recently been advised that these 37 tracts in the Destin Dome area have been deleted from the sales as set forth in the "Supplement to DEIS for Sales A62 & 62" Revised 10/8/79.

If these conditions prevail at Notice of Sales scheduled for October of 1980, the State of Florida has no objections to them. But if these tracts are reinserted into the sales, it will be expected that resulting geological hazard studies as acknowledge in Secretary Andrus' letter of July 13, 1979, will be performed prior to Notice of Sales.

The Draft Impact Statement for Proposed 1980 Outer Continental Shelf Lease Sales A62 and 62 is presently under review by the State of Florida Clearinghouse for impact statements. Written comments will be submitted by November 26, 1979, as requested by the manager of the New Orleans BLM office.

Very truly yours,

Murice O. Rinkel  
State of Florida OCS Representative

MOR/rvf  
Enc.

## STATE OF FLORIDA

OFFICE OF GOVERNOR BOB GRAHAM

JUN 04 1979

Honorable Cecil D. Andrus  
Secretary of the Interior  
Washington, D.C. 20240

Dear Mr. Secretary:

Thank you for the tentative tract list for proposed OCS Sales A62 and 62. There are 37 tracts in Sale A62 in the Destin Dome area (OCS Official Protraction Diagram, Destin Dome NH 16-8). These particular tracts were entered into what was Lease Sale 62 about two-thirds of the way through normal lease sale procedures. At that time, the State of Florida indicated that it had no objections to their inclusion at that late date if proper environmental studies were done before the sale.

The addition of these 37 tracts has raised some questions which we hope you or the New Orleans office of the Bureau of Land Management can answer. It is our understanding that this area has been deleted from past sales by the Department of Defense. These tracts are in an area where no lease sales were held or scheduled before enactment of Public Law 95-372 (Outer Continental Shelf Lands Act Amendments of 1978). Under that act, it would be considered an area requiring studies before the lease sale.

Although we are not privileged to all of the data collected by the Bureau of Land Management and the United States Geological Survey (USGS), it is our belief that analysis of the hazards associated with these tracts has not been completed. We request that an analysis be completed before Notice of Sale.

It is possible that a similar condition occurs for jointly funded USGS and BLM "habitat mapping" which was done for Lease Sale No. 65. The results of that study were very important to the State in its final comments to you

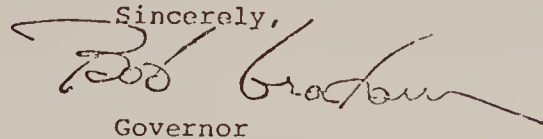
JUN 6 1979

Honorable Cecil D. Andrus  
Page Two

at Notice of Sale. A similar study should be made before Notice of Sale A62. That information will be used in our request for sale stipulations.

Thank you for the opportunity to comment.

Sincerely,

  
Governor

BG/fjc



United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

JUL 13 1979

Honorable Bob Graham  
Governor of Florida  
State Capitol  
Tallahassee, Florida 32304

Dear Governor Graham:

Thank you for your June 4, 1979, letter regarding proposed OCS Sale No. A62. You expressed concern that habitat mapping and geohazard studies for certain lease blocks in the Destin Dome area be completed prior to publication of the preliminary Notice Sale.

We are aware, of course, of the need to begin environmental studies for this area if we intend to lease tracts there. The Bureau of Land Management is currently assessing the various studies needed for the Gulf of Mexico, and appropriate consideration is being given to the need for information in the Destin Dome area. The U.S. Geological Survey has some information for certain Destin Dome tracts and has recently awarded a contract for collection of additional high resolution data for hazards analysis.

I will have available this information when I consider the tract offerings for Sales A62 and 62. I can assure you that if the Destin Dome tracts are offered for lease, adequate measures will be taken to protect the environmental values of this area.

Sincerely,

(Sgd) Cecil D. Andrus  
SECRETARY

PII-1-1 The Destin Dome tracts are still deleted; however, your comments have been noted in the event they are reinstated.

AUG 8 1979

**SOUTHERN NATURAL GAS COMPANY**  
**LEGAL DEPARTMENT**  
P. O. BOX 27710 - 777 SOUTH POST OAK ROAD  
HOUSTON, TEXAS 77027  
(713) 871.7800

November 14, 1979

Manager,  
New Orleans Outer Continental Shelf Office  
Bureau of Land Management  
Hale Boggs Federal Building  
500 Camp Street - Suite 841  
New Orleans, Louisiana 70130

Dear Sir:

Enclosed herewith please find the written statement of Mr. John M. Van Dyck, Vice President of Southern Natural Gas Company, in connection with that certain public hearing to be held November 15, 1979, in the BLM Conference Room, Suite 841, Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana 70130, for the purpose of receiving comments and suggestions relating to proposed oil and gas OCS Lease Sales A62 and 62.

Very truly yours,

SOUTHERN NATURAL GAS COMPANY

*Sheila R. Tweed*  
Sheila R. Tweed  
Attorney

SRT/dms

Enclosure

**SOUTHERN NATURAL GAS COMPANY**  
**GAS SUPPLY DIVISION**  
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Statement on Behalf of  
Southern Natural Gas Company  
In Connection with Public Hearing  
To Be Held November 15, 1979 in  
New Orleans, Louisiana Regarding  
Proposed Gulf of Mexico Outer Continental  
Shelf Lease Sales A62 and 62.

Gentlemen:

I am J. M. Van Dyck, Vice President of Southern Natural Gas Company, on behalf of which I make the following statement.

Southern Natural Gas Company, an interstate natural gas transmission company based in Birmingham, Alabama, is the principal supplier of natural gas at wholesale in the states of Alabama, Georgia and South Carolina, and it also supplies gas to consumers in Mississippi, Florida, Louisiana and Tennessee. Southern Natural's pipeline system extends across the southeastern United States from fields in eastern Texas and southern and offshore Louisiana to the system's termination in South Carolina and the coastal regions of Georgia.

Southern Natural currently obtains a major portion of its natural gas supply from the offshore area and has invested millions of dollars in gas pipelines and facilities in the Gulf of Mexico, which lines and facilities Southern Natural has been safely operating for many years. During 1977, an extensive expansion of the offshore gas supply system serving Southern Natural in the Gulf of Mexico was completed and Southern Natural is continuing to actively participate in the construction and ownership of offshore pipeline facilities.

As a major supplier of natural gas in the southeast, Southern Natural is concerned about the country's existing and projected shortages of proven gas reserves and the critical shortage of gas available for sale to consumers in the states of Mississippi, Alabama, Georgia, Florida, South Carolina, Tennessee, and elsewhere. In view of this shortage, we are firmly convinced that the public interest requires leasing of offshore areas at an accelerated pace.

As a result of the Natural Gas Policy Act of 1978, Southern Natural is now able to acquire some quantities of natural gas being discovered in onshore areas which previously were not available to the interstate market. These onshore reserves, however, have not as yet contributed significantly to Southern Natural's gas supply. Although Southern Natural anticipates increasing its purchases of gas from onshore areas, from the standpoint of Southern Natural and the consumers it serves, the offshore Outer Continental Shelf areas continue to constitute the principal potential domestic sources of gas for the future.

During 1978, Southern Natural Gas acquired 43.6% of the gas it purchased from Federal offshore leases. A preliminary review of the gas supplies purchased by Southern Natural for resale in 1979 indicates that 37.3% of the gas was attributable to reserves from the Federal offshore area. As a result of the natural gas shortage which affects Southern Natural primarily during the winter heating season, we are often in the position of having to curtail service to our

customers, pursuant to a curtailment plan ordered by the Federal Energy Regulatory Commission. Additionally, we have found it necessary to import the equivalent of 320 million cubic feet per day of natural gas in liquid form, or the equivalent of approximately 15% of Southern Natural's peak-day delivery obligations, to supplement our declining domestic gas deliverability. However, according to our studies neither curtailment of service, importation of liquefied natural gas nor the manufacture of synthetic natural gas from naphtha, oil or coal, present viable solutions to our short supply dilemma. Instead, new and substantial domestic reserves of natural gas must be discovered, and it is our firm conviction that for the most part, the greatest potential for these new reserves lies in the development of the Outer Continental Shelf areas.

The "Draft Environmental Impact Statement" prepared by the Bureau of Land Management in connection with the proposed lease sale A62 and 62 indicates that the estimated undiscovered recoverable reserves of oil and gas in the 296 tracts under consideration are substantial. Thus, the proposed lease sale should contribute considerably not only to alleviating the national shortage of gas reserves but also to relieving the energy shortage by supplying needed products such as fuel oil and gasoline. Although it will take some time to explore, develop and produce any gas and oil reserves which may be discovered, the proposed lease sale and others similar to it represent a

substantial step both toward bringing some relief to the natural gas industry's millions of consumers and toward reducing the increasing imbalance between the nation's demand for and supply of energy.

The continued development of our Outer Continental Shelf Areas, particularly the Gulf of Mexico, will help in relieving the medium term energy shortages projected for the Southeast. However, in order to meet the long-term problem, our nation must also increase its efforts toward solving the research and development problems presented by solar energy, nuclear fission, and other costly, new energy sources. But this research effort may not yield tangible results in this decade or the next. Therefore, it is not only prudent but mandatory that we continue to develop our conventional petroleum resource base while progressing with research that will enable us to have energy supplies in the next century.

With respect to the specific points outlined in Section 102(2)(c) of the National Environmental Policy Act of 1969 and covered by the "Draft Environmental Impact Statement," we believe the following statements to be true with regard to the proposed lease sale:

1. The environmental impact of the proposed action will be favorable since the sales should serve to significantly increase the supply of natural gas which, as a clean burning fuel, will not contribute to air pollution in heavily populated areas.

2. Any possible adverse environmental effects which cannot be avoided, should the proposal be implemented, will be inconsequential and for the most part temporary. Furthermore, various federal laws, rules and regulations govern operations in these offshore areas to prevent pollution, and the record of the oil and gas industry in these areas has been and continues to be excellent.
3. There are no realistic and complete alternatives to the proposed OCS lease sale. The Gulf of Mexico Area of the Outer Continental Shelf is the primary source of new gas reserves from within the United States and the oil and gas produced from this offshore area is readily accessible to market areas through existing offshore pipeline systems.
4. The development of hydrocarbon reserves in the Outer Continental Shelf will leave the ocean environment and ecology essentially unaffected and will enhance the long-term productivity of our nation's valuable hydrocarbon reserves.
5. Any irreversible and irretrievable commitments of resources which will be involved in the proposed action, should it be implemented, will be the commitment to the nation of domestic hydrocarbon reserves desperately needed to serve the energy requirements of the United States and to rapidly achieve energy independence.


PH-3

Shell Oil Company



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In closing, in view of the critical situation facing the nation in maintaining an adequate energy supply, and in the interest of ensuring the continued health of the national economy, we strongly urge that proposed lease sales A62 and 62 be held forthwith and that additional large and general sales of Outer Continental Shelf tracts for oil and gas development be held on a regular, frequent and continuing basis in the near future.

  
J. M. Van Dyck  
Vice President  
Southern Natural Gas Company

R. L. Ferris  
Vice President  
Exploration & Production  
Southern Region

November 26, 1979

Mr. John L. Rankin, Manager  
New Orleans OCS Office  
Bureau of Land Management  
Hale Boggs Federal Building  
Suite 841  
500 Camp Street  
New Orleans, LA 70130

Dear Mr. Rankin:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT -  
PROPOSED OCS SALES A-62 AND 62

Your announcement of the November 15, 1979 hearing on the proposed OCS Sales A-62 and 62 invited comments regarding certain issues presented in the Draft Environmental Impact Statement (DEIS). Among these were: (1) domestic and commercial needs for the resource, (2) industry interest in a sale, and (3) geologic conditions as they affect safety and protection from environmental pollution. Shell Oil Company welcomes this opportunity to participate in this leasing process and offers the following for your consideration.

Shell has frequently urged the Bureau of Land Management to accelerate the leasing of public lands, particularly those in the OCS, as one method of alleviating the current energy crisis in the U.S. The domestic and commercial needs for the resources which may result from these proposed sales are discussed in Attachment I. Our most recent update of the total energy supply and demand picture indicates that 1.93 MMB/D of crude oil equivalent, or 20% of our marginal supply in 1990, must come from new offshore oil and gas discoveries. Because of an anticipated tight world crude supply throughout the 1980's, the option to meet this need through increased imports does not exist. In addition, this would be contrary to the President's plan to decrease imports in accordance with the announcement at the Tokyo summit.

Although according to the USGS estimates, the potential for Sales A-62 and 62 is relatively small; it is important to have each sale on the proposed schedule if the projected goals from new offshore discoveries are to be met. Therefore, Shell Oil Company supports Sales A-62 and 62 as detailed in Alternate "A" of the DEIS (less the tracts deleted in the Destin Dome multiple use area).

PH-2-1 Thank you for your written statement.

In addition, we wish to comment on Modifications 3, 4, 5, and 6 of Alternate "B". These modifications, if adopted, would result in the loss of almost one-third of the oil and gas reserves projected under Alternate "A".

#### Modification B-3 - Biological Protection

Shell believes that there is no scientific justification for the deletion of ten tracts located on or near biologically sensitive areas. Extensive environmental data currently available to BLM concerning the fate and effects of discharges emanating from OCS activities are sufficient to allow oil and gas development in the near vicinity of hard bank--"live bottom" areas in the Gulf of Mexico. The general restrictions of shunting within one nautical mile (nmi) of the 85m isobath as proposed under Alternate "A", is a reasonable approach toward providing protection for these areas. However, from an environmental standpoint, discharge at a subsurface depth of 10-15m would be preferable. This allows maximum dilution to occur before the plume reaches the near surface layer or bottom.

Based on data from numerous studies in a variety of OCS areas, it does not appear necessary to shunt or monitor 1-3 nmi from the 85m contour. Physical measurements have shown that the suspended solids load of the plume beyond a few hundred meters is usually near background levels (<5 mg/l). Even after bulk discharges made at rates up to 1000 barrels/hour, the concentration of solids in the plume has dropped to these low levels.

#### Modification B-4 - Geological and Engineering Hazards

We feel that the six tracts in the Mississippi Delta which may be subject to unstable bottom sediments should not be arbitrarily withheld from leasing. The proposed July 2 1979 revision to OCS Order No. 8 provides adequate safeguards relative to the installation of fixed-bottom structures on such tracts. Paragraph 1.3(a) of this order requires that platforms installed in areas of unstable bottom conditions must be certified by an independent Certified Verification Agent who has been approved by the USGS.

#### Modification B-5 - Continental Slope

This modification would delete 24 tracts located on the Continental Slope from the proposed OCS sales because of the expressed concern that adequate technology and regulations do not exist in water depth to 700m (2300 feet). Because of the large amount of research conducted to date, the oil industry is confident that technology is now available to develop oil and gas fields in water depths of at least 914m (3000 feet) off the coasts of the lower 48 states. Also, the USGS has the ability and authority to critically review and approve deep water field development plans including the facilities employed. (See Attachment II for detailed discussion.)

The deep waters of the Gulf of Mexico, which have been very lightly explored to date, offer the best opportunities to both increase our productive capability and to continue the development of this technology. Support facilities are currently in place and development costs will be lower than in other OCS provinces.

#### Modification B-6 - Special Coordination Area (Buffer Zone)

The 3-mile buffer zone proposed under Modification B-6 encompasses many relatively well explored areas which have some remaining potential. Disputes about drainage, etc., across the State-Federal boundary must be settled on a case-by-case basis after sufficient delineation drilling has been done. Delays in leasing these areas are not justified. In fact: (1) they could contribute to cases of unwarranted drainage of Federal acreage by wells drilled in State waters; and (2) of the 43 tracts that would be deleted, 24 tracts are estimated to contain about 17% of the gas reserves and 19 tracts are estimated to contain about 20% of the oil reserves for the total sale area. BLM properly concludes that elimination of such tracts would result in a "lost opportunity to lessen our dependence on foreign oil importation."

We further note that the Outer Continental Shelf Lands Act Amendments of 1978 stated that one of the purposes of the Act was to give the states opportunity to be informed regarding OCS development. To withdraw tracts in order to eliminate the necessity of such communications flies in the face of that stated purpose. More importantly, another purpose of the act was to "insure that the extent of oil and natural gas resources of the Outer Continental Shelf is assessed at the earliest practicable time." The creation of buffer zones around states at best delays, and at worst prohibits the assessment of important tracts recognized as potential future sources of hydrocarbons. The "buffer zone concept" conflicts with the Congressional instruction, given through OCSLAA, to develop OCS resources in order to make such resources available to meet the Nation's energy needs as rapidly as possible. When one weighs the effect of Modification B-6, especially in light of ever-increasing problems regarding our dependence on foreign oil, it is clear that the "inconvenience" caused by the necessity to coordinate development of these tracts with the State is more than offset by the consequential loss of the opportunity to develop significant domestic reserves.

Yours very truly,



Attachments

# ATTACHMENT I

## OCS SALES A-62 AND 62 HEARING DOMESTIC AND COMMERCIAL NEEDS FOR THE RESOURCE

To establish the need for the resource, it is necessary to review the total energy supply and demand picture for the United States. Shell has just completed a preliminary update of the energy situation. This update takes into account the changes in world crude oil prices implemented by OPEC last July. The results do not portray a picture of what Shell would like to see happen but, rather, a reflection of what Shell perceives will probably occur under present and foreseen policies and constraints in both the domestic and international energy environment.

Based on this analysis we are projecting that total U.S. energy supply and demand will grow by under 2% per year between 1978 and 1990 reaching over 45 million barrels per day of crude oil equivalent (C.O.E.).\*

### PREMISES

Energy forecasts attempt to relate economic and social factors to patterns of future consumption and supply. Since individual forecasts assign differing values to the various parameters, each forecast is a one-of-a-kind interpretive projection of future conditions. The basic premises used in constructing Shell's forecast are as follows:

1. Real GNP(\$1972) grows at an average rate of 2.7% AAI during the 1978-1990 period. In the near term, we are projecting a recession during 1979-1980 from which the economy makes a strong recovery in the early 1980's. This growth rate is slower than the 3.7% AAI experienced during the post-World War II period 1948-1978. This slower growth will be caused, in large part, by a projection of lower total population growth, more stringent environmental standards, and higher energy prices.
2. The growth in population is premised to average 0.9% annually from 219 million in 1978 to 244 million in 1990. Historic growth rate from 1948 to 1978 was higher, 1.3% annually, due to the post World War II baby boom.

\*See Appendix for definitions and energy conversion factors. All numbers are expressed in C.O.E.'s throughout the paper.

3. Energy demand growth is suppressed by higher energy prices and various government conservation programs, e.g. home insulation credits.
4. Continued strong public support for environmental issues will impose some constraint on energy development and consumption. However, annual amounts of acreage offered in OCS lease sales are projected to be higher than the historical rate with 5-6 lease sales per year. Since OCS leasing started in 1954, there have only been four years (1974, 1975, 1976, and 1978) in which the Federal Government has held four lease sales per year. The average sale rate during 1954 to 1978 has been only 1.4 sales per year. The United States has only leased 3.0% of the OCS acreage to a 200 meter water depth.
5. Price controls will be removed on crude oil by October 1981 and an excise tax will be imposed. However, we are premising that newly discovered, incremental tertiary recovery, and heavy oil will be exempt from the excise tax.
6. Both the government and industry will accelerate new technology developments. By 1990, additional energy contributions will come from coal gasification, coal liquefaction, shale oil, geothermal, and some solar energy; however, these contributions will be very modest.
7. Oil demand in the industrialized countries of W. Europe and Japan will be constrained within the import limits agreed for 1985 at the Tokyo summit. However, the U.S. will import nearly 10 MMB/D in 1985 as compared to its 8.5 MMB/D limit. We are projecting that the major oil-exporting nations will provide sufficient supplies to meet these import needs. However, throughout the 1980's, the growth in world oil demand will likely continue to strain production availability due to the exporting nations measures to conserve supplies and, by the end of the period the effects of resource limitations.
8. Imposition of the 8.5 MMB/D U.S. oil import limitation through 1985 would reduce the rate of recovery from the 1979-1980 recession and would reduce the growth rate in GNP to 2.5% AAI during the 1978-1990 period. It would require either allocation/rationing programs or fuel tax increase in the mid 1980's with the transportation market probably bearing the greatest burden. Under these conditions price controls will probably be imposed. We are projecting that the nation will consider this an unacceptable burden when crude supplies are available for importation.

## U. S. ENERGY DEMAND BY MARKET

Total energy demand in the U.S. is distributed by market in Chart 1. In preparing this chart, electricity and synthetic oil and gas have been incorporated into each of the demand markets; therefore, the "loss" category represents the energy lost in converting from the original form of energy to electricity and synthetic fuels.

By 1990, America's total energy requirements will have increased by 26 percent, or 9.8 MMB/D COE over the level of energy required in 1978. The 2% per year growth rate in energy demand between 1978 and 1990 is slower than the 4.2% annual rate experienced between 1965 to 1973 due to slower economic growth, higher energy prices, and federal subsidies to encourage greater conservation.

The high cost of energy and the federal tax incentive programs are expected to lead to a modest conservation effort in the residential/commercial market, which represents the energy used in homes, stores and office buildings. Consequently, the demand growth of this market will be reduced slightly from 3.4% AAI to 2.3% AAI.

Industrial use of energy will decrease by 5% by 1980 due to the 1979-1980 recession and will grow at 2.2% AAI during the 1980's. This is a substantial reduction from the 3.2% AAI in the industrial market during 1965 to 1973 because of reduction in real GNP growth rate and continuing decreases in energy use per unit of output.

The transportation market (automobiles, trucks, railways, airplanes, and other mobile equipment) is projected to grow at 0.6% AAI during 1978 - 1990 as compared to a 4.9% AAI rate during 1965-1973. This is due to a slower growth in the vehicle fleet and the meeting post 1985 mandated fuel economies for light trucks and autos of 27.5 miles per gallon.

Electricity generation is the main contributor to the loss category and is projected to grow at a faster rate than total energy demand, although growth will be sustained at a slower rate than before. The rate of increase in electric utility losses is higher than in our previous projections due to greater inefficiencies imposed by the stack gas scrubbing requirements of the Clean Air Act. Only 3% of the losses in 1990 are incurred by synthetic fuel production.

## U.S. ENERGY SUPPLY BY FUEL SOURCE

The distribution of energy by fuel source is illustrated on Chart 2. Natural gas, nuclear, hydroelectric, geothermal, and solar power are limited by either resource constraints or economics and regulatory problems. Coal is limited by demand due to limitations on the convertibility of one fuel source to another, particularly the substitution for oil in the transportation market. Therefore, oil continues to be the marginal supply with foreign oil imports varying with oil consumption requirements. Oil and natural gas account for 73% of the energy supply in 1978 and are projected to account for 58% of the supply in 1990. Oil and gas supply and demand remain approximately level and will be discussed in more detail later.

Coal usage is projected to grow at 5.9% AAI, to 1.4 MM tons per year in 1990, twice the 1978 consumption. However, usage continues to be limited by the rate of existing plant conversions where the economics of converting small boilers and confusion over air quality regulations slow the rate of change.

About 154,000 megawatts of installed nuclear capacity is expected by 1990. This capacity will contribute 24% of the total electric input energy or 4.2 MMB/D COE. These are essentially existing plants plus plants now under construction.

Sites for expansion of major hydropower complexes are limited. In addition, greater losses will be associated with new pumped storage facilities. Therefore, the net energy production from this source is expected to remain constant at 1.5 MMB/D COE.

The geothermal resource base is small. Although solar power has great potential, technological and economic problems will delay any major contribution from this source until the next century. In total, we expect about 0.5 MMB/D COE of energy in 1990 will come from solar, biomass, urban waste, geothermal, wind, and low-head hydropower sources. We do not expect any contribution from nuclear fusion until the next century.

Of particular interest to OCS Sales A-62 and 62 are the components of oil and gas supply as these are the products that will result from the sale. Because natural gas is supply limited, we will next discuss the components of natural gas supply and its distribution between markets. We can then examine the components of the oil demand market and how the oil demand is satisfied by domestic supply and imports.

#### U. S. GAS SUPPLY

Chart 3 sets forth our projection of the components of available gas supply. Total gas supply increases 800 MB/D by 1990. This is a change from our previous forecasts where total gas supply was declining. The increase in total supplies from previous forecasts is due to tight gas sand production which becomes economic at present decontrolled prices.

Imports grow 400 MB/D by 1990 with growth in Mexican and LNG imports more than offsetting the projected decline in Canadian gas imports. Importation of Canadian and Mexican gas is limited by resource availability based on present reserve assessments while LNG imports are limited by environmental/economic problems.

Synthetic gas from coal and oil is projected to amount to 500 MB/D in 1990 with coal contributing 400 MB/D. Oil gasification will be limited by economics. Coal gasification has been limited by economics and technology development. However, present price levels should encourage the initiation of the development of a coal gasification industry by 1990. Growth is limited by the long lead times required for these facilities.

Previously, we were projecting only 200 MB/D from unconventional sources (tight gas sands, Devonian shale, coal seams, and geopressured brines) by 1990. Recent studies indicate that 1.3 MMB/D could become available by 1990 largely from tight gas sands based on increased incentives associated with present decontrolled prices and tax credit assistance. Approximately 44 percent (3.3 MMB/D COE) of the remaining domestic conventional production in 1990 must come from reserves yet to be discovered and 25 percent (0.8 MMB/D COE) of that from the offshore. Natural gas production from new offshore discoveries will continue to increase after 1990 reaching the 1.2 MMB/D COE level by the mid 1990's.

The following table shows the contributions of the various components of total U.S. dry gas supply in the years 1978 and 1990:

	MMB/D COE		TCF/YEAR	
	1978	1990	1978	1990
Imports	0.47	0.90	1.0	1.8
Syngas	-	0.49	-	1.0
Unconventional	-	1.34	-	2.7
New Discoveries - Offshore	-	0.81	-	1.7
New Discoveries - Onshore	-	2.45	-	5.0
Discovered Fields	8.89	4.20	18.4	8.6
Total	9.36	10.19	19.4	20.8

#### U. S. GAS DEMAND BY MARKET

The distribution of the available gas supply between markets is illustrated on Chart 4. The residential/commercial market grows by 1.5 MMB/D COE by 1990 and replaces the industrial market as the largest user of natural gas (50% of supply in 1990) as increasing amounts of gas are used for space heating. We are projecting a continued relaxation of the restrictions on residential hookups and the refitting from oil to gas in this market, some with government support.

Gas use in the industrial market grows by 500 MB/D by 1990 as more gas becomes available for industrial processes as utilities comply with gas phase-out regulations. The growth in the industrial market is limited by the available gas supply. Utility usage is generally restricted by mandate to peak loading facilities by 1990 thereby reducing utility usage by 1.1 MMB/D COE.

#### U. S. OIL DEMAND BY MARKET

Oil demand in the U.S. is distributed by market in Chart 5. Oil demand is projected to remain relatively constant over the 1980's. This reflects conservation efforts and fuel switching to gas and coal.

Exported oil products (predominately petroleum coke) will remain at the 200 MB/D level throughout the period. This is a net figure and does not include crude returned to the U.S. market after processing.

Oil use in the residential/commercial market declines by 100 MB/D over the period. The growth in this market is largely satisfied by gas and electricity. However, certain areas cannot move from oil to gas because of a lack of an adequate gas transmission network. Oil use will be reduced in existing residential/commercial markets due to refitting to natural gas, some with government support.

Mandatory conversion to coal under boilers and increased availability of gas for the industrial market reduces industrial oil demand to 3.8 MMB/O in 1990, a 300 MB/D reduction from the 1978 level.

The transportation market accounts for 52% of the total oil demand in 1978. This market grows by 700 MB/D to 10.2 MMB/O in 1990 or 57% of the total. The growth of the transportation market is suppressed below the growth in number of vehicles by increases in fuel efficiency.

Electricity utility oil use, the major component of conversions, is reduced from 1800 MB/O in 1978 to 1200 MB/O in 1990 due to partial implementation of the proposed plan for mandatory phase-out of oil in utilities. Complete phase-out of oil in the utility market is not feasible due to constraints on the availability of other fuel sources. Oil gasification is included in the "Conversions" market and amounts to approximately 100 MB/O oil use in 1990.

#### U. S. OIL SUPPLY

Sources of supply for the U.S. oil demand are illustrated on Chart 6. Total oil supply decreases by 400 MB/D by 1990. Oil imports, the marginal supply that balances supply and demand, are projected to rise from 8.1 MMB/O in 1978 to nearly 10 MMB/D by 1985 and then decline to 8.3 MMB/D by 1990.

Synthetic oil should emerge as a new supply source contributing 400 MB/D by 1990. Shale oil projects currently in hand should be producing 150 MB/O by 1990 with the remaining 250 MB/O coming from coal liquefaction. Growth is limited by the long lead times required for these facilities.

Production from enhanced recovery projects reaches nearly 1 MMB/O in 1990, an increase of 700 MB/D over current levels. These are currently thermal recovery projects. However, chemical and miscible flooding projects will be commenced during the 1980's and are projected to supply 400 MB/D by 1990 and over 1 MMB/D by 1995.

Conventional production volumes will decline to 8.3 MMB/D by 1990 with new discoveries supplying 1/3 (2.6 MMB/D) of the conventional production. Further, over 40 percent (1.1 MMB/O) of the 1990 production resulting from new discoveries is from the offshore. The production contribution beyond 1990 from new discoveries in general, and new offshore discoveries specifically, will represent ever increasing amounts and shares of the domestic conventional oil supply. By 1995, the production from new

offshore discoveries is expected to be 2.1 MMB/O, a 90% increase over the 1990 level.

The following table shows the contributions of the various components of total U.S. oil supply in the years 1978 and 1990:

	MMB/D	
	1978	1990
Imports	8.10	8.26
Syncrude	-	0.40
Enhanced Recovery	0.27	0.94
New Discoveries - Offshore	-	1.12
New Discoveries - Onshore	-	1.49
Discovered Fields	9.95	5.67
Total	18.32	17.88

#### OCS SALES A-62 AND 62 RESOURCE NEEDS

Based on the above analysis, we can establish the needs for the resources that can be associated with the A-62 and 62 sales. In evaluating the need for OCS sales, we should combine the new offshore oil and gas discoveries with imported oil to obtain the marginal supply required to balance supply and demand in the U.S. as in the following table:

	MMB/O COE	%
Imports	8.26	81.1
New Discoveries - Offshore		
Oil	1.12	11.0
Gas	0.81	7.9
Subtotal	1.93	18.9
Total	10.19	100.0

As shown in the table, new offshore discoveries supply 20 percent of our marginal supply in 1990 and their contribution should grow beyond 1990 as production from new offshore discoveries increase after 1990 and imports decrease. In our assessment, the world crude supply situation will remain tight throughout the 1980's. Therefore, the option does not exist to increase imports by 1.9 MMB/O in 1990 thereby foreclosing the need for production from new offshore discoveries. In addition, this would be contrary to the President's plan to decrease imports in accordance with the announcement at the Tokyo summit. A variation of 2 MMB/O in U.S. import requirements will directly affect U.S. trade balances and can have a significant impact on world crude prices. This was illustrated recently by reductions in Iranian production in that order of magnitude.

In order to achieve the projected production goals from new offshore discoveries, it is important to have each sale on the proposed sale schedule. The U.S.G.S. resource estimates for sales A-62 and 62 are as follows:

	Crude and Condensate MMB	Natural Gas BCF
Minimum	16.4	422
Mean	27.1	735
Maximum	49.2	1,040

Although this is a relatively small potential for offshore sales, we project that discoveries from this sale could contribute production ranging from 30 MB/D to 75 MB/D C.O.E. by 1990. This should be reflected as a direct reduction in foreign oil imports having a beneficial effect on U.S. trade balances and the world crude oil supply and demand relationships.

OCS SALES A-62 AND 62 HEARING  
DOMESTIC AND COMMERCIAL NEEDS FOR THE RESOURCE

APPENDIX

I. Abbreviations

B	-	Barrel
BCF	-	Billion cubic feet
COE	-	Crude oil equivalents
MMB/D	-	Million barrels per day
MB/D	-	Thousand barrels per day
AAI	-	Average annual increase
TCF	-	Trillion cubic feet
M	-	Thousand
MM	-	Million

II. Conversion Factors

<u>Number of Units Equivalent to 1B COE</u> (1B COE = 5.8 MMBTU's)		
	<u>1978</u>	<u>1990</u>
Oil - Barrels		
Crude	1	1
Lease Condensate	1.25	1.25
Plant Liquids	1.45	1.45
Gas - Thousand cubic feet	5.67	5.62
Coal - Short tons	0.25	0.29
Nuclear } *		
Hydro }   Thousand	1.70	1.70
Geothermal }   kilowatt		
}   hours		
Solar** - Dwelling years		0.08

\* Equivalent input energy - multiply by 0.33 efficiency factor to arrive at electricity generated.

\*\* Solar consumption measured by how much oil solar could displace.

## COMMENTS REGARDING SUGGESTED WITHDRAWAL

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## OF DEEPWATER TRACTS UNDER ALTERNATE B OF THE PROPOSED 1980 OCS SALES A62 AND 62

Modification B-5 of the Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62, Gulf of Mexico involves a proposed deletion of 24 tracts located on the Continental Slope. The deletion has been proposed because of concern expressed by EPA and others that adequate technology and regulations do not exist for developing leases in water depths to 700 meters (2300 feet). Over the last several years the oil industry has spent tens of millions of dollars in designing equipment, developing analytical tools, performing model tests and conducting full-scale field tests in preparation for producing oil and gas in water depths of 914 meters (3000 feet) or more. A summary of much of this work is included as Appendix 6 of the Draft Environmental Statement, Proposed Five-Year OCS Oil and Gas Lease Schedule, March 1980-February 1985. This summary was prepared by the New Orleans office of the Bureau of Land Management.

There are a number of deepwater field development methods that are applicable to the tracts that are proposed for deletion by EPA. Economics and field characteristics will likely determine which method is applicable at a specific site. Fixed leg platforms may find application to at least 365 meters (1200 feet) of water. Guyed towers are applicable to around 610 meters (2000 ft). Tension leg platforms are expected to be feasible to at least 914 meters (3000 feet). All of these methods offer the capability to drill, complete and operate wells from a surface location similar to existing fixed leg platforms. Another applicable method is the use of subsea wells producing to a floating or shallow water fixed piling platform. Subsea wells have been in existence on the Outer Continental Shelf for twenty years and considerable operating experience has been gained. Recent design studies and full-scale field installations have demonstrated the capability to install and operate subsea manifolds for gathering, controlling, testing and commingling the production from several wells. Other research and development work has resulted in methods for installing, connecting and repairing pipelines; installing and operating production risers and servicing and repairing subsea installations.

The net result of all of this work is that the oil industry is confident that technology does exist to develop oil and gas fields in water depths of at least 914 meters (3000 feet) off the coasts of the lower 48 states. That is not to say that all design details have been finalized or all potential operational problems have been solved. Some uncertainties exist, but they are similar to the risks that were faced in previous advances in offshore development work. The Industry is confident that these uncertainties will diminish rapidly as further engineering is done and the installation and operation of an actual system is planned.

Members of the oil industry are poised, ready to risk millions of dollars in acquisition, exploration and development of deepwater tracts based on their confidence in the present state of deepwater technology. They have an excellent record in extending development to the current record depth of 312 meters (1025 feet). This progress has been made after careful and complete analyses of hazards and risks and providing for them in equipment design. The only way that production technology in deeper waters can become proven is for the industry to be given the opportunity to apply it where a real need exists. If the opportunities are not provided, the technology will not be proven. It's as simple as that. There is no better place in the world to prove this technology than the Gulf of Mexico which has been the scene for major developments in the past.

With regard to the EPA concern over the lack of regulations governing deepwater installations, the USGS has the ability and authority to critically review and approve field development plans including the facilities employed. This general scheme will provide adequate control until sufficient experience is gained to identify any unique requirements not covered by existing regulations.

BCC/ym  
11/14/79

- PH-3-1 BLM agrees that the tracts listed in Modification B-3 can be leased and developed with no adverse environmental impacts on the nearby banks provided that the stipulations as proposed in the DEIS are implemented. While we feel that the requirement to shunt or monitor in the area 1 to 3 nmi from the 85 m isobath of those banks is probably somewhat conservative, we do not have adequate evidence at this time regarding the fate and effects of very low concentrations of drilling fluids on sensitive biota to warrant reducing that distance (except in the case of Sackett Bank, and then because this Bank is biologically depauperate - see Section I.E.4.a.4, page 20). Perhaps additional monitoring in this area will allow us to reconsider this requirement.
- PH-3-2 As of this FEIS publication, the proposed revision has not yet been finalized.
- PH-3-3 Your comments are noted.
- PH-3-4-1 Your comments are noted.
- PH-3-4-2 We do not believe this alternative is contrary to the purposes of the OCSLAA since it was offered as a deletion option in the event litigation occurred which might stop the entire sale.
- NOTE: The charts discussed in Attachment I are on file in the New Orleans OCS Office.

PH-4

## Gulf Oil Exploration and Production Company

Gulf Oil Exploration and Production Company  
P.O. Box 61590  
New Orleans, LA 70161

November 21, 1979

P.O. Box 61590  
New Orleans, LA 70161

STATEMENT OF  
GULF OIL EXPLORATION AND PRODUCTION COMPANY,  
A DIVISION OF GULF OIL CORPORATION,  
IN SUPPORT OF PROPOSED 1980  
OUTER CONTINENTAL SHELF OIL AND GAS  
LEASE SALES NOS. A62 and 62  
GULF OF MEXICO

Manager, New Orleans OCS Office  
Bureau of Land Management  
Hale Boggs Federal Building, Suite 841  
500 Camp Street  
New Orleans, Louisiana 70130

Dear Sir:

Gulf of Mexico - Offshore Louisiana  
and MAFLA Lease Sale No. A62 and  
Offshore Texas Lease Sale No. 62

Gulf Oil Corporation respectfully submits the attached statement in support of the proposed Outer Continental Shelf Oil and Gas Lease Sales No. A62 for Offshore Louisiana and MAFLA - September 1980, and No. 62 for Offshore Texas - November 1980.

Very truly yours,

Gulf Oil Corporation

By \_\_\_\_\_

GBS/mc

Attachment

Gulf Oil Exploration and Production Company, a Division of Gulf Oil Corporation, is grateful for this opportunity to make known its position with regard to the proposed 1980 Federal Lease Sales of 191 tracts offshore Louisiana, Mississippi, Alabama and Florida (OCS Sale No. A62) and of 74 tracts offshore Texas (OCS Sale No. 62), and the attendant draft environmental impact statement.

The Draft Environmental Impact Statement is an exhaustive, objective study and evaluation of the environmental impact of the proposed sales, the adverse environmental effects which cannot be avoided should the proposal be implemented, alternatives to the proposed sales, the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources which would be involved in the proposed sales should they be held.

In addition to assessing the Department of Interior's action in holding the lease sales, administering the leases, and supervising the lease activities, it is clear from the draft statement that numerous federal agencies were consulted by the BLM and given a chance to comment on these lease sales. As a result under 40 CFR §1500.7 the BLM acted as a "lead agency." Therefore, Gulf suggests that the final EIS contain a

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NOV 22 1979  
BUREAU OF LAND MANAGEMENT  
U.S. DEPARTMENT OF THE INTERIOR  
NEW ORLEANS, LOUISIANA  
41

statement that the BLM has been designated the lead agency for purposes of all agencies involved in or affected by Sales Nos. A62 and 62, and that the BLM acted in that capacity in preparing the EIS. Except for the aforementioned comment, Gulf otherwise concurs generally with the Draft Environmental Impact Statement and urges that the lease sales totaling 265 tracts be held as proposed.

Gulf believes the proposed lease sales are essential to the economic well-being of the United States. The opening up of additional tracts on the Outer Continental Shelf for lease sale is the most realistic and effective method of alleviating energy shortages. The lease sales of the 265 proposed tracts would add 1,332,514.55 acres to the current total of Outer Continental Shelf lands under federal lease. U. S. Geological Survey estimates that offshore reserves from these sales could be as much as 27.1 million barrels of oil and 735 billion cubic feet of gas.

The country's production of oil and gas has declined significantly in recent years, but demand for energy is rapidly increasing. In recent winters we have experienced harsh effects of a shortfall in natural gas supplies causing severe losses in industrial production and rises in unemployment. Recently this country experienced a gasoline shortage brought about in part by the cessation of Iranian oil exports. Further, purchases of foreign oil are adding to the United States' problems in the areas of foreign balance-of-payment and foreign exchange. Production from these sales could eliminate \$542 million in foreign payments.

Unless the United States reduces its reliance on imported oil by immediately taking steps to increase its domestic offshore production, the economy will continue to be unstable and vulnerable to strikes (such as the recent coal strikes), political embargoes and disruptions in Middle East exports. The November 12, 1979 issue of Oil & Gas Journal in printing an API Special Report at page 164 forecasts:

The next decade will be a period of what one forecaster calls "uneasy equilibrium," another "heightened sensitivities" in energy supply and demand.

Energy surpluses will be rare, as production stabilizes and demand continues to grow. As a result, importing nations will be increasingly vulnerable to supply interruptions that translate into immediate shortages. Major industrial countries may be able to fulfill pledges not to increase oil imports above existing levels because increased volumes may not be available.

What has been said up to this point has not been to ignore the environmental aspects of the proposed lease sales but rather to suggest the perspective in which they must be considered. Even if the environmental risks were much greater than they are, economic problems and other considerations relating to the national interest would compel that development. Fortunately, the risks to the environment are minimal. The United States is not forced to choose between economic well-being and a clean environment. It can have both petroleum development and a properly managed and safeguarded environment.

Admittedly, operations to find and produce offshore oil and gas are not without some risk, but the history of offshore exploration

and production over the past twenty years shows that the accident rate has been very low and that no permanent damage to the environment has resulted from oil spills or other occurrences. The National Advisory Committee on Oceans and Atmosphere, in its Fifth Annual Report to the President and the Congress, June 30, 1976, p. vii, recommends:

As a nation we recognize the need to explore and develop offshore oil and gas resources consistent with enforceable, environmentally safe procedures and the need for maintaining strategic reserves, and that we reconcile the process with an economic atmosphere suitable for development.

Gulf is dedicated to preserving the ecological balance in all areas where it conducts operations, and it pledges to continue that effort in exploring and developing the areas offshore the Gulf states.

Gulf actively participated in the first offshore lease sale held in 1954 and has had many years of experience in the development of oil and gas in the Gulf of Mexico. Through voluntary industry action and federal and state regulation, a wide variety of preventive planning and countermeasure programs have been developed to prevent spills and to minimize or eliminate damage in the event that spills do occur. Gulf has established a comprehensive program to train its personnel in advanced safety techniques. Selected Gulf employees participate in a school of automation technology to train personnel in preventive maintenance for minimizing equipment malfunctions. Gulf operates a drilling school which provides six weeks of comprehensive and intensive training in all areas of drilling and completion practices with emphasis on well control and safety. Gulf research personnel also conduct a seminar and on-rig training program covering such subjects as proper blowout-preventor operations and early detection and control of possible blowouts. An oil

spill contingency plan has been developed which would become effective in case an offshore emergency occurs. This plan, which has been implemented for Gulf of Mexico operations, creates a special emergency action group composed of specially trained operating personnel who are immediately relieved of their normal company assignments so they can deal exclusively with the emergency.

In addition to its own special activities for promoting environmental safety, Gulf participates with other companies and organizations in environmental protection programs. One such cooperative undertaking of particular note is "Clean Gulf Associates." Formed to supplement other programs, it is an industry-wide effort to maintain personnel and equipment to react should an offshore emergency occur. Under this program a well-known offshore contractor stockpiles specialized containment and clean-up equipment at key locations along the Gulf coast. The contractor maintains a staff of supervisory personnel, including engineers, who are especially knowledgeable in operating containment and clean-up equipment. The services of the organization are available to all members, and there are special provisions to make the services available to non-members.

As all in the petroleum industry are well aware, very strict controls over all offshore petroleum operations are being enforced continually by the United States Geological Survey, the Coast Guard, the Environmental Protection Agency, and the Office of Pipeline Safety. Their regulations, promulgated under strong and comprehensive Congressional legislation, govern virtually all aspects of offshore activity and insure that uniform and approved precautions are taken in all operations. Gulf will continue to observe these regulations, as it has in

44

G. B. Scarborough  
Vice President  
Gulf Oil Exploration and Production  
Company, a Division of Gulf Oil  
Corporation

PH-4-1

MOBILE OFFICE  
PHONE (205) 690 6308



Thomas J. Joiner  
Supervisor  
Ken P. Hanby  
Assistant Supervisor

Dear Mr. Rankin:

Sincerely,

TJJ:ph

[illegible]

Mark Wyatt  
Southern Regional Supervisor



WILLIAM C. HULS  
SECRETARY

DEPARTMENT OF THE INTERIOR  
DIVISION OF SITE SAFETY AND  
ENVIRONMENTAL ANALYSIS

ORY G. PORET  
DIRECTOR

JAMES M. HUTCHISON  
DEPUTY SECRETARY

October 12, 1979

Mr. John L. Rankin, Manager  
United States Department of the Interior  
Bureau of Land Management  
New Orleans Outer Continental Shelf Office  
Hale Boggs Federal Building  
500 Camp Street, Suite 841  
New Orleans, Louisiana 70130

Dear Mr. Rankin:

RE: 1792.2 (300)  
Sale #A62, 62

We received and have reviewed the draft environmental impact statement prepared on proposed Gulf of Mexico OCS oil and gas Lease Sales Nos. A62 and 62 tentatively scheduled to be held in September and October 1980, respectively.

The new format is refreshing and certainly enhances participation in the review process. We note also with favor that the material content is much more up-to-date.

In general, we believe that the DEIS adequately addresses the environmental considerations associated with the two proposed sales. It is our opinion that the advantages of the proposed sales outweigh the disadvantages particularly when considering the energy needs of our Nation and therefore, we recommend that Alternate A be adopted. Louisiana does, however, reserve all its rights in regard to the inclusion of any tracts falling under the provisions of section 8 (g) of the OCS Lands Act Amendments of 1978.

Thank you for the opportunity to offer these comments.

Sincerely,

WILLIAM E. HOWE  
CHIEF ENGINEER

WEH/wmb

2-1 Thank you for your comments.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

OCT 11 1979

Manager, New Orleans OCS  
Office  
Bureau of Land Management  
Hale Boggs Federal Building  
500 Camp Street, Suite 841  
New Orleans, Louisiana 70130

Gentlemen:

This is in response to your request for comments on the Draft Environmental Statement concerning proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62.

3-1 We have reviewed the statement and determined that the proposed action has no significant radiological health and safety impact, nor will it adversely affect any activities subject to regulation by the Nuclear Regulatory Commission.

Since we made no substantive comments, you need not send us the Final Environmental Statement when issued.

Thank you for providing us with the opportunity to review this Draft Environmental Statement.

Sincerely,

Wm. H. Regan, Jr., Acting Assistant Director  
for Environmental Projects & Technology  
Division of Site Safety and  
Environmental Analysis

cc: Director (540)  
Bureau of Land Management  
Washington, DC 20240

3-1 Thank you for your comments.



OFFICE OF THE GOVERNOR  
Planning & Coordination  
1303 Walter Sillers Building  
JACKSON, MISSISSIPPI 39201

STATE CLEARINGHOUSE FOR FEDERAL PROGRAMS

CLIFF FINCH  
GOVERNOR

TO: United States Department of the Interior STATE CLEARINGHOUSE NUMBER  
Bureau of Land Management  
Hale Boggs Federal Building  
500 Camp Street  
New Orleans, Louisiana 70130

79100118

DATE: October 15, 1979

ATTN: Mary R. Bartz

PROJECT DESCRIPTION: -NATIONWIDE-

Environmental Impact Statement, Proposed 1980 Outer continental shelf oil and gas lease sales A62 and 62/.

The State Clearinghouse, in cooperation with the state agencies interested or possibly affected, has completed the A-95 review of the project described above.

4-1 None of the state agencies involved in the review had comments or recommendations to offer at this time. This concludes the State Clearinghouse review, and we encourage appropriate action as soon as possible.

A copy of this letter is to be attached to the application as evidence of compliance with the A-95 requirements.

Lester Howell, Coordinator  
Clearinghouse for Federal Programs

4-1 Thank you for your comments.



A. RUSSELL MORTENSEN  
EXECUTIVE DIRECTOR

STATE OF ALABAMA  
ALABAMA HISTORICAL COMMISSION

725 MONROE STREET  
MONTGOMERY, ALABAMA 36104

October 23, 1979



TELEPHONE NUMBER  
832-6621

United States Department of  
the Interior  
Bureau of Land Management  
New Orleans Outer Continental  
Shelf Office  
Half Boggs Federal Building  
500 Camp Street-Suite 841  
New Orleans, LA 70130

RE: Draft Environmental Impact  
Statement prepared on proposed  
Gulf of Mexico OCS oil and gas  
Lease Sales Nos. A62 and 62

To Whom It May Concern:

5-1 The Alabama Historical Commission has reviewed the draft EIS on the above referenced project and concurs with the proposed cultural resource assessment procedure outlined as Appendix C.

Thank you for your interest in the protection of Alabama's cultural resources.

Sincerely,

Milo B. Howard, Jr.  
State Historic Preservation Officer

MBH, Jr. /djd

5-1 Thank you for your comments.



CITIES SERVICE COMPANY  
ENERGY RESOURCES GROUP

Cities Service Building  
5100 Southwest Freeway  
Box 27570  
Houston, Texas 77027  
(713) 850-6100

October 23, 1979

Mr. John Rankin  
Manager  
Bureau of Land Management  
New Orleans OCS Office  
Suite 841, Hale Boggs Federal Building  
500 Camp Street  
New Orleans, Louisiana 70130

Re: Availability of Draft Environmental Statement  
and Public Hearing Regarding Proposed Oil and  
Gas Lease Sales A62 and 62, Gulf of Mexico

Dear Mr. Rankin:

Reference is made to Federal Register Vol. 44, No. 190, dated Friday, September 28, 1979, at pages 56049-050, regarding the availability of Draft Environmental Statement and the holding of Public Hearing regarding the captioned lease sales offering 296 tracts located in the Gulf of Mexico.

Cities Service Company supports the Department in offering these tracts for lease. We also reaffirm our past endorsement of continuing periodic OCS oil and gas lease sales under known and established rules and regulations.

We are of the opinion such an orderly progression is a necessary ingredient to the President's energy program.

We also encourage a timely and orderly development of not only the Gulf of Mexico but all OCS areas. Cities Service also supports the concept of multiple use and therefore respects the concurrent right and obligations of all users. We also feel the industry, within established guidelines, will take necessary steps to protect the environment to the best of its ability during the exploratory and development stages. As an individual company, we continue our pledge to operate both onshore and offshore facilities with serious and responsible regard for proper environmental considerations as well as consideration for others in the multiple use concept.

Yours very truly,

CITIES SERVICE COMPANY

Jack R. Place  
General Manager  
U. S. Offshore Region

6-1 Thank you for your comments.

## Advisory Council On Historic Preservation

7

This response does not constitute  
Council comment pursuant to  
Section 106 of the National Historic  
Preservation Act, nor Section 2(b)  
of Executive Order 11593.

1522 K Street NW.  
Washington D.C.  
20005

October 25, 1979

Bureau of Land Management  
New Orleans Outer Continental  
Shelf Office  
Hale Boggs Federal Building  
500 Camp Street, Suite 841  
New Orleans, Louisiana 70130

Dear Sir:

This is to acknowledge receipt of the draft environmental statement for the proposed Outer Continental Shelf Oil and Gas Lease Sales A62 and 62, Texas, Louisiana, Mississippi, Alabama and Florida on October 5, 1979. We regret that we will be unable to review and comment on this document in a timely manner pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969.

Nevertheless, the Bureau of Land Management is reminded that, if the proposed undertaking will affect properties included in or eligible for inclusion in the National Register of Historic Places, it is required by Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f, as amended, 90 Stat. 1320) to afford the Council an opportunity to comment on the undertaking prior to the approval of the expenditure of any Federal funds or prior to the issuance of any license. The Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800.4) detail the steps an agency is to follow in requesting Council comment.

Generally, the Council considers environmental evaluations to be adequate when they contain evidence of compliance with Section 106 of the National Historic Preservation Act, as amended. The environmental documentation must demonstrate that either of the following conditions exists:

7-1

6-1



## United States Department of the Interior

NATIONAL PARK SERVICE  
Padre Island National Seashore  
9405 South Padre Island Drive  
Corpus Christi, Texas 78418

NEW ORLEANS OCS  
FILE NO. \_\_\_\_\_  
TO: \_\_\_\_\_  
DATE: \_\_\_\_\_

IN REPLY REFER TO

L76

October 24, 1979

### Memorandum

To: Manager, Bureau of Land Management, New Orleans Outer  
Continental Shelf Office, New Orleans, Louisiana

From: Superintendent, Padre Island National Seashore

Subject: Draft Environmental Impact Statement Sale A62, 62

Generally we feel the subject DEIS is very comprehensive. We do have a few comments, however, which you may wish to consider.

On Pages 34 and 93, there is reference to the removal of approximately 400 feet of beach front from recreational use during pipeline construction. We have just experienced such an event and the actual area closed to the public was 1,200 feet with another 400 feet effectively removed from use by the presence of trucks and heavy equipment. This area was required due to the surf zone crossing depth of 10 feet required by the State. The space needed for temporary storage of the displaced sand and the width of the excavation at the surf's edge involved several acres. Although this particular pipeline had a 20" diameter, the size has relatively little to do with the area affected.

On the other side of the recreation picture was an unexpected benefit to fishermen. The dredging adjacent to the shore stirred up myriad food organisms which attracted small fish which, in turn, attracted larger fish. So, for several weeks, the fishing was greatly improved in the area of the pipeline crossing.

On Page 89, Paragraph 9, reference is made to a 10% probability of an oil spill impacting marine turtle habitats within 10 days. I assume that this statement is solely concerned with nesting areas. Sea turtle habitat involves not only nesting areas, but includes dispersal and migratory routes as well. At least two species of endangered/threatened marine turtles, principally the Kemp's Ridley and the Loggerhead, frequent coastal waters of the Gulf of Mexico. Therefore, it seems evident that any oil spill resulting from OCS Exploration and Production activities would have a 100% probability of impacting marine turtle habitat immediately.

Page 2

Bureau of Land Management, OCS Office  
OCS #A62 and 62

1. No properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will not affect any such property. In making this determination, the Council requires:

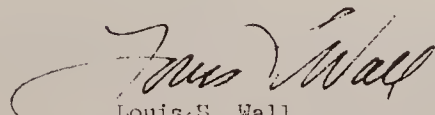
--evidence that the agency has consulted the latest edition of the National Register (Federal Register, February 6, 1979, and its monthly supplements);

--evidence of an effort to ensure the identification of properties eligible for inclusion in the National Register, including evidence of contact with the State Historic Preservation Officer, whose comments should be included in the final environmental statement.

2. Properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will or will not affect any such property. In cases where there will be an effect, the final environmental statement should contain evidence of compliance with Section 106 of the National Historic Preservation Act through the Council's regulations, "Protection of Historic and Cultural Properties".

Should you have any questions, please call Michael C. Quinn at (303) 234-4946, an FTS number.

Sincerely,

  
Louis S. Wall  
Chief, Western Division  
of Project Review

7-1 The latest listings of the National Register have been consulted, and the SHPO's from all the coastal states adjacent to the sale area have been contacted in order to obtain a complete list of all sites on, or eligible for inclusion in, the National Register of Historic Places. These sites have all been considered in the assessment of potential impacts which may result from the proposed lease sale.

7-2 Based on our environmental impact assessment we have concluded the proposed sales will not adversely affect listed or eligible properties.

8-3

On Page 81, Paragraph 2, it is stated that "trash improperly disposed of offshore, or debris from accidents offshore, can eventually impact the aesthetics of shoreline recreation resources and cause increased maintenance problems to resource area administrators. Although a minor problem, such impacts can be expected." The accumulation of plastic sheeting, plastic and glass containers, paint cans, household garbage, hardhats, etc. from offshore sources is quickly becoming a major administrative and maintenance problem at Padre Island. Due to seasonal current patterns, especially during the fall and winter months, the majority of floating garbage in the northwest Gulf of Mexico is seemingly deposited along the beaches of Padre Island National Seashore. This is no longer viewed as a minor problem.

On Page 93, Paragraph 2 says: "Shoreline recreation could be slightly depressed by an oil spill.....". In light of the Ixtoc 1 oil spill, this is a gross understatement. Although the economic impact on the tourist industry around Corpus Christi and South Padre Island has yet to be accurately assessed, we can provide visitation and camping statistics for Padre Island National Seashore, which are revealing:

Recreational Visits to Padre Island National Seashore

	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>
3-Year Average (1976-1978)	141,836	125,753	102,072	61,429
1979	108,274	112,665	88,399	38,455
% Change	-23.7%	-10.4%	-13.4%	-37.4%

8 4

Overnight Visits to Padre Island National Seashore (Campers)

	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>
3-Year Average (1976-1978)	14,723	14,860	12,934	5,549
1979	11,938	9,923	6,640	1,434
% Change	-18.9%	-33.2%	-51.3%	-74.2%

Decreases in June and July were primarily due to the automotive fuel shortage. decreases in August and September were primarily due to the oil spill. The camping figures are particularly significant. They more accurately reflect visitation by persons outside the local area who normally bring new money into the surrounding communities.

The Ixtoc 1 oil spill began its noticeable economic impact on Texas beaches about August 5, when misleading press coverage began discouraging visitors from coming to area beaches. The first actual oil impact of significant scope began on August 15. Once it arrived, the oil made the beaches totally unfit for recreational use without costly, and often impractical, cleanup.

About September 14, the winds and currents shifted and the tides were exceptionally high for several days. Most beach contamination rapidly disappeared. However, as of this date, the visitation has not returned to normal.

8-5

We realize that the likelihood of a similar disaster at a well in American waters would be less likely due to more stringent safety requirements but we want to stress that a much smaller spill closer to U. S. shores could have a similar effect on any portion of the Gulf Coast and a smaller scale economic disaster could result. Also, in a closer well the toxicity of the oil reaching the beach would probably be greater resulting in a greater biological impact. This leads us to stress the need for the best possible blowout preventers and the use of highly conservative procedures to control "kicks" in areas of known high pressure and in wildcat locations.

Myrl Brooks

- 8-1 Based on the experience documented at Padre Island, we will update our recreational assessment of pipeline-beach landfalls to reflect temporary removal (2-3 weeks) from public use of 1,200 and 1,600 feet of shorefront beach. Likewise, we shall note the potential enhancement of fishing success in the nearshore zone associated with the pipeline burial.
- 8-2 Your comments are noted.
- 8-3 Even though trash being washed ashore from the Gulf of Mexico is a major problem for Padre Island National Seashore, we believe indiscriminate or accidental disposal of floatables from OCS oil and gas operations resulting from proposed Sale 62 will have a minor impact on Padre Island. Several factors are likely contributors to the gravity of trash accumulations on Padre Island. For example, oceanographic and meteorological conditions, commercial shipping and fishing, oil and gas operations in state territorial waters, and marine recreational activities in the South Texas nearshore area are possibly affecting the severity of the problems experienced at the national seashore.
- 8-4 Unfortunately, oceanographic and meteorologic conditions during certain seasons seem to cause Padre Island to suffer disproportionately from the pollutants introduced into the Gulf of Mexico that came ashore. Although we doubt the resource potential of any area offered in proposed Sale 62 is comparable to the offshore area near Tampico, Mexico we acknowledge there is a minor risk of a major accident directly related to U.S. offshore oil and gas operations causing severe short-term impact on recreational use at discrete areas along the shorefront of the Northern Gulf of Mexico. Thirty years of U.S. offshore operations in the Gulf of Mexico without a single instance of the magnitude and effect you document make a prediction of such an occurrence stemming from proposed Sale 62 unwarranted.
- We obtained recreational use figures for the same years and months you analyzed from the Mississippi unit of the Gulf Islands National Seashore and Cape Hatteras National Seashore. A comparison of the fluctuation in public use between 1979 and the three year coverage base period support your conclusion that the gas shortage has caused a national decline in seashore use but not nearly as dramatic as the decline experienced at Padre Island. Your observation of noticeable declines in public use almost 2 weeks prior to actual pollution of the beaches confirms our suspicion that the emotionalism associated with oil pollution can sometimes cause more impact than the actual pollutant itself. Your comments will improve our future attempts at impact analysis.
- 8-5 We concur with the identified need for adequate blowout prevention and well control procedures. In view of the record for blowout prevention and wild well control in U.S. waters, the present Operation Orders seem to be accomplishing this goal.



CLIFF FINCH  
Governor

**MISSISSIPPI  
DEPARTMENT  
OF WILDLIFE  
CONSERVATION**

**Bureau of  
Marine Resources**  
P.O. Drawer 959  
Long Beach, MS 39560  
(601) 864-4602  
Enforcement  
Division — 374-3205

Commissioners:

J.E. "Rusty" Hobgood  
Chairman  
Grenada, MS

Fred K. Rogers  
Clinton, MS

Allen D. Bruton  
Scooba, MS

Dr. John Ouzis  
Cleveland, MS

L.C. "Billy" Gollott  
Biloxi, MS

RICHARD YANCEY  
Executive Director

RICHARD L. LEARD  
Bureau Director

November 20, 1979

Mr. John L. Rankin, Manager  
U. S. Department of the Interior  
Bureau of Land Management  
New Orleans Outer Continental Shelf Office  
Hale Boggs Federal Building  
500 Camp Street - Suite 841  
New Orleans, LA 70130

Dear Mr. Rankin:

Thank you for providing us an opportunity to review and comment on the draft environmental impact statement prepared on proposed Gulf of Mexico OCS Oil and Gas Lease Sales Nos. A62 and 62.

Our response is provided in reply to your letter designated 1792.2(300) Sale #A62,62 and pertains to those sites in the vicinity of OCS waters contiguous to the territorial waters of the State of Mississippi.

Based upon the sites designated and the information provided in the DEIS, we support Alternative "A" - Hold the Sale as proposed.

Sincerely,

Richard L. Leard, Ph.D.  
Bureau Director

CML:kg

9-1 Thank you for your comments.

NEW ORLEANS OCS	
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MGR.	
ASST. MGR.	
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P. LEGAL	
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STUDIES	
MGMT. SER.	



L. G. OTTEMAN, CHAIRMAN  
P. O. BOX 60124  
NEW ORLEANS, LA 70160

F. E. SYFAN, VICE-CHAIRMAN  
P. O. BOX 50879  
NEW ORLEANS, LA 70150

W. B. WEAVER, SECRETARY-TREASURER  
P. O. BOX 61780  
NEW ORLEANS, LA 70161

November 20, 1979

Mr. John L. Rankin, Manager  
New Orleans OCS Office  
Bureau of Land Management  
Hale Boggs Federal Building  
500 Camp Street, Suite 841  
New Orleans, LA 70130

Dear Mr. Rankin:

The Offshore Operators Committee (OOC) has reviewed the Draft Environmental Impact Statement (DEIS) for Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62 and offers the following comments.

10-1 The OOC strongly recommends that the 30 tracts included in Modifications B-4 and B-5 not be deleted from the proposed sales. As stated in the DEIS, these tracts may contain substantial oil and gas resources which are badly needed to help reduce this nation's dependence on foreign energy supplies. Considerable work is underway within industry to find solutions to exploration and development problems associated with instability of bottom sediments and deepwater environments. Progress has been made. For example, industry already has the capability of exploring, developing and transporting to shore reserves in about the water depth range of the 24 tracts that would be excluded in Modification B-5. Activities are continuing on the premise that there will be opportunities for application of technology as it is developed. To delete tracts from leasing consideration simply because they are in deep water or in areas having potential geologic and engineering hazards is to remove the primary incentive that industry has for continuing an active and aggressive research and development program. Individual companies should at least be allowed the opportunity to bid on these tracts. Any subsequent exploration and development activities by successful bidders will be amply and closely controlled through existing procedures which require that the lessee demonstrate adequacy of designs to the satisfaction of the regulatory agency, thus insuring the protection of public interests.

10-2 The OOC is keenly aware that the exploration of petroleum resources on the 30 tracts will undoubtedly be a challenging, difficult, expensive and time consuming process. We are confident that, given the need and adequate incentive, industry will find the solutions to technical problems. The industry's past performance record bears this out. The federal government can materially aid industry efforts through timely lease sales, support in some facets of basic research, and prudent actions in its role as a regulator. We believe that it is unrealistic to attempt to develop deepwater regulations at a time when technology is evolving and in view of the multitude of regulatory requirements that are already in place. Also, granting of leases for an initial period of more than five years should be considered to allow time for such work as special soil studies in areas of unstable bottom conditions that can require years to complete.

Mr. John L. Rankin

2

10-3 For your information attached are several selected papers from the literature describing work on geotechnical hazards and the technology that is already available for deepwater development.

10-4 The Offshore Operators Committee also believes there is no scientific justification for deletion of the ten tracts included in Modification B-3 and recommends they be included in the sales. We believe that the special stipulations discussed under Alternate A.4.a. Biological Stipulation (pp. 14-23) are more than adequate to protect these areas. In our view such an approach has been proven by the wealth of information generated for drilling activities in the area of the Flower Garden Banks. As you are aware, the Offshore Operators Committee has submitted numerous supportive comments in regard to Flower Garden Banks area operations (letter of August 7, 1978 to Mr. Dail W. Brown-NOAA; letter of October 5, 1978 to Mr. Robert B. Elliott-EPA; letter of June 11, 1979 to Ms. JoAnn Chandler-NOAA; and letter of November 9, 1979 to Mrs. Linda Hunter-EPA). Copies of all of these documents have previously been submitted to you.

In summary, for the reasons given above OOC recommends that Lease Sales A62 and 62 proceed in their entirety as outlined in Alternate A.

Yours very truly,

L. G. Otteman, Chairman

Attachments

- 10-1 Thank you for your comments. They will be used by reference in our response to comments received from the EPA.
- 10-2
- 10-3 These enclosures were too numerous to reprint in entirety; however, they will be kept on file in the New Orleans OCS library.
- 10-4 Your comments are noted.



EOWIN EDWARDS  
GOVERNOR

HARVEY R. H. BRITTON, SR.  
SECRETARY

State of Louisiana

Department of Urban and Community Affairs  
Office of Planning and Technical Assistance

November 20, 1979

*Jill M. Lewis*

JILL M. LEWIS  
ASSISTANT SECRETARY



IN REPLY REFER TO  
LMNPD-RE

DEPARTMENT OF THE ARMY  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160

21 November 1979

Mr. John Rankin, Manager  
United States Department of the Interior  
Bureau of Land Management  
New Orleans Outer Continental Shelf Office  
Hale Boggs Federal Building  
500 Camp Street-Suite 841  
New Orleans, Louisiana 70130

Re: Draft EIS prepared on proposed Gulf of Mexico OCS oil and gas  
Lease Sales Nos. A62 and 62

Dear Mr. Rankin:

We are in receipt of the above referenced environmental assessment and have reviewed it for state and local agency review responsibilities. Those agencies selected to receive and review a copy of the statement are listed below. Any comments forthcoming from these agencies will be forwarded to you prior to the comment closing date.

A copy of the statement will be kept on file in our library for public inspection.

We appreciate the opportunity to review this proposal.

Sincerely,

*George P. Gullett*  
George P. Gullett  
Environmental Coordinator

GPG:dn

Copies of Statement sent to: Attorney General's Office  
Department of Wildlife and Fisheries  
Department of Natural Resources  
Imperial Calcasieu Regional Planning & Development Comm.  
Evangeline Economic Development District  
South Central Planning & Development Commission  
Regional Planning Commission  
Capital Region Planning Commission

11-1 Thank you for your comments.

P. O. BOX 44455-BATON ROUGE, LOUISIANA 70804-504/925-3756  
5790 FLORIDA BLVD., BATON ROUGE, LOUISIANA 70806

Manager  
New Orleans OCS Office  
Bureau of Land Management  
Hale Boggs Federal Building  
Suite 841  
500 Camp Street  
New Orleans, LA 70130

Dear Sir:

Your draft environmental impact statement (EIS), with cover letter dated 28 September 1979, concerning proposed Outer Continental Shelf oil and gas lease sales in the Gulf of Mexico (OCS Sales # A62 & 62) was referred to the New Orleans and Galveston Districts from our Washington Office for review and comments. This is a coordinated reply.

We have reviewed the draft EIS in accordance with our areas of responsibility and expertise as outlined in the Council on Environmental Quality Regulations, Title 40, CFR, Part 1500, published in the "Federal Register" dated 29 November 1978; and US Army Corps of Engineers administrative procedures for permit activities in navigable waters or ocean waters, Title 33, CFR, Parts 320-329, published in the "Federal Register" dated 19 July 1977.

12-1

We have no comments to offer at this time.

Thank you for the opportunity to review and comment on this draft EIS.

Sincerely,

Copy Furnished:  
Director  
Bureau of Land Management  
Washington, DC 20240

*Thomas A. Sands*  
THOMAS A. SANDS  
Colonel, CE  
District Engineer

12-1 Thank you for your comments.



November 19, 1979

Mr. John L. Rankin, Manager  
New Orleans Outer Continental Shelf Office  
Bureau of Land Management  
U.S. Department of the Interior  
Hale Boggs Federal Building  
500 Camp Street - Suite 841  
New Orleans, Louisiana 70130

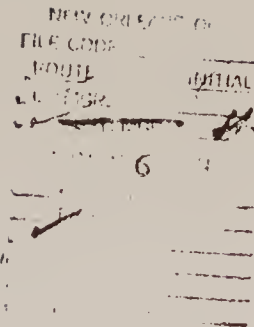
Dear John:

By letter of September 28, 1979, you forwarded a copy of the Draft Environmental Impact Statement (DEIS) for the proposed oil and gas Lease Sales A62 and 62. Similar copies were sent to Mr. Walter Kolb, Chairman of the State of Florida Clearing House for Environmental Impact Statements. I have been advised by Mr. Kolb that the document has been reviewed by the Clearinghouse group, and he has requested me to include their concerns in my reply to you as the OCS Representative. Therefore, you will be receiving only one response from the State of Florida to this DEIS.

Inasmuch as BLM's notice of October 8, 1979, does not appear to have the 37 tracts in the Destin Dome area included in the sales, I am assuming that those portions of this DEIS related to the Eastern Gulf of Mexico will be deleted in the final document. Therefore, I will discuss the DEIS in general terms and philosophy since it will not be directly related to the frontier areas adjacent to the State of Florida. My comments are going to be brief and few in number.

13-1 On general principles, the State of Florida has great concerns in regard to cultural surveys required by past stipulations. Since it will request such a lease stipulation in Lease Sale 66, it would like to indicate a strong support to reducing the line spacing to 75 meters as recommended in Appendix D on Page 151.

On Page 52 in the discussion of the physical oceanography of the Gulf of Mexico a discussion of the eddy break-offs from the Loop Current



Mr. John L. Rankin  
November 19, 1979  
2.

13-2

can be interpreted that eddies are found only in the Western Gulf of Mexico. This is not true. Eddies do break off and impact the area of tracts to the west of DeSoto Canyon and along the entire northern and western coast of Florida. It should be stressed that the Loop Current can extend into the northern Gulf of Mexico in other time periods than the summer months as indicated by the contract work performed for BLM.

13-3

On Pages 69 and 87 remarked are made in regard to drill cuttings and muds. The gist of these really state that oil drilling muds are known to be toxic to freshwater organisms and that no tests have been performed for salt-water organisms. The statement on Page 69 should really be rewritten to so state because throughout the text it is clearly stated that research needs to be done on this problem. On Page 90 in the next to last paragraph, the last sentence states that acute oil spills from offshore lease tracts rarely have direct and dramatic impacts on shoreline recreational resources. I am wondering whether this should be modified based on the results of the Mexican oil spill.

13-4

13-5

On Page 102, the last portion of the first paragraph states that 25 years of offshore activities have not shown major environmental impacts in the Gulf and apparently environmental results from oil and gas activities are less than in the other OCS areas. I don't think that statement applies to frontier areas in MAFLA. Further, I don't think that studies were performed in time to determine the effects of OCS operations in the western and central Gulf of Mexico. This type of statement, in my opinion, will cause concerns, which will influence people's opinion of an otherwise well written Environmental Impact Statement. On Page 54 a reference is made to BLM's final report on Contract No. AA551-CT8-22. This is not listed in the references starting on Page 109 through 113 as near as I can tell. Similarly, references to Mabrey, Deuel, and Kirsch (1977) on Page 57; to Dr. Curtis B. Harris, Jr., industrial forecasting model, on Page 81; and to Dr. Lela Jeffrey's remarks on marine hydrocarbon pollution on Page 91 are not in the references.

13-6

13-7

In my opinion, this is an extremely well written DEIS. I am highly pleased to see that information out of the completed and existing BLM environmental study programs is used within the descriptive material on the environment and the effects of OCS operations on that environment. Further, I am impressed with what I consider to be a fair treatment of all problems associated with OCS activities and a frank discussion of what various impacts they can cause. While I might personally disagree with some of the conclusions, the discussions have pointed out the different problems. I think Doug Elvers and his group are to be commended.

Very truly yours,

Murice O. Rinkel  
State of Florida OCS Representative

MOR/rvf

- 13-1 Thank you for your comments regarding the 75 m line spacing.
- 13-2 Page 52 will be changed as follows: A sentence will be added to the end of paragraph one, "Eddies may also break off from the loop current, intermittently affecting the shelf regions of the northeastern and eastern GOM." Additionally, the second sentence in paragraph 4, "During . . . Delta" is deleted and replaced by "The Loop Current extends far into the northern GOM, especially during the summer months."
- 13-3 A sentence has been inserted before the last sentence in the first paragraph under IV.A.1.a. on page 69 to read as follows: "Toxicity of drilling muds or drilling muds components to marine organisms is not well understood, but is an area of ongoing research."
- 13-4 Refer to our response to National Park Service letter No. 8, comment 8-4, paragraph 1.
- 13-5 This statement should have indicated the central and western Gulf which have had a history of oil and gas development.
- 13-6 Your comments are noted.
- 13-7 Thank you for your comments and support.



REGION VI

14

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
 FT. WORTH REGIONAL OFFICE  
 1100 COMMERCE STREET  
 DALLAS, TEXAS 75202

NEW ZIP CODE 75242

November 13, 1979

IN REPLY REFER TO:

Mr. Frank Gregg, Director  
 Bureau of Land Management  
 United States Department of the Interior  
 500 Camp Street  
 New Orleans, Louisiana 70130

Dear Mr. Gregg:

14-1

The Draft Environmental Impact Statement for the Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62, Gulf of Mexico, has been reviewed in the Department of Housing and Urban Development's New Orleans Area Office, Dallas Area Office, and Fort Worth Regional Office and it has been determined that the Department will not have comments on this statement.

Sincerely,

*Victor J. Hancock*  
 Victor J. Hancock  
 Environmental Clearance Officer

14-1 Thank you for your comments.

AREA OFFICES  
 DALLAS, TEXAS · LITTLE ROCK, ARKANSAS · NEW ORLEANS, LOUISIANA · OKLAHOMA CITY, OKLAHOMA · SAN ANTONIO, TEXAS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF THE  
ADMINISTRATOR

Mr. Frank Gregg, Director  
Bureau of Land Management  
U.S. Department of the Interior  
Washington, D.C. 20240

Dear Mr. Gregg:

The Environmental Protection Agency (EPA), in accordance with its responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act, has reviewed the draft environmental impact statement (EIS) for Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62.

The proposed action is two lease sales in the Gulf of Mexico offering a total of 259 tracts in September and November of 1980. Our review of the EIS on this proposal indicates general satisfaction with the information presented and a lack of objection to the offering of 229 of the 259 tracts. We have generic reservations regarding the offering of 24 tracts on the Continental Slope and six tracts occurring in a area of delta sediments with a high slumping probability, since the technology to develop reserves in deep water, or in areas of unstable sediment, is in some cases, not fully demonstrated. Further, there is the possibility of the use of subsea completions on these or other tracts, for which we continue to assert, appropriate standards and regulations for safe operations should be promulgated. This concern is somewhat mitigated in those instances where platforms would be utilized since the Platform Verification Program will be able to provide appropriate review and certification for new or divergent platform designs.

With regard to the offering of tracts with high biological value, we believe the EIS may need to be more specific concerning levels of environmental protection required by BLM and EPA. Page 6 of the EIS indicates that EPA will not take action against operators discharging into the Gulf without a permit, so long as DOI regulations are met. We request the FEIS be altered to read that "no action will be taken by EPA as long as the appropriate

2

15-3

discharge permit application has been filed." We also request that the final statement contain more current information regarding the June 1979, Pemex platform blowout.

We hope our comments will assist in the preparation of the final statement.

Sincerely yours,

William N. Hedeman, Director  
Office of Environmental Review (A-104)

15-1

- 15-1 At the recent OCS Advisory Board Meeting held in Portland, Oregon, the most current deep water operating capabilities were summarized by James T. Dean, Globe Marine Development, Inc.

Graphs presented at the meeting (Refer to Shell Oil Company Letter PH-3) revealed drilling depth capability in excess of 4000' considerably greater than the maximum depth anticipated on those tracts on the upper continental slope. In the comments received from Shell Oil Company it is stated that technology is now available to develop oil and gas fields in water depths of at least 914 m (3000 feet) off the coasts of the lower 48 states. Deep water technology was previously addressed in Appendix D, p. 305, DEIS 58A.

As stated in Modification B-4, page 38, and illustrated in Figure 8, Mississippi Delta Area, page 39 of the DEIS, special studies have been completed and are available to determine which blocks may require special geologic stipulations as the result of unstable bottom sediment areas. Most tracts in this area will have some portion which will be relatively stable and safe for structure placement. Modification B-4 has been revised to reflect the results of the hazards analysis.

15-2

- 15-2 The statement on page 6 has been changed to reflect your comment.

- 15-3 It has been difficult to obtain accurate information on the Mexican Pemex platform blowout. This office is in the process of preparing a Regional Resource Document which will address this blowout using all available data that can be obtained.

November 21, 1979

Manager, New Orleans OCS Office  
Bureau of Land Management  
US Department of the Interior  
Hale Boggs Federal Building  
500 Camp Street  
New Orleans, Louisiana 70130

Dear Sir:

This is in reference to your draft environmental impact statement entitled, "Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62, Gulf of Mexico." The enclosed comments from the Maritime Administration and the National Oceanic and Atmospheric Administration are forwarded for your consideration.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving twelve copies of the final statement.

Sincerely,

Sidney R. Galler  
Deputy Assistant Secretary  
for Environmental Affairs

Enclosure Memos from: Dr. George C. Steinman  
Maritime Administration

Mr. William H. Stevenson  
National Marine Fisheries Service, NOAA

Mr. Jeff Hawkins  
Environmental Research Laboratories, NOAA

Mr. K. Hadeen  
Environmental Data And Information Service, NOAA



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Duval Building  
9450 Koger Boulevard  
St. Petersburg, FL 33702

October 31, 1979

FSE61/RR  
893-3503

TO: PP/EC - Dr. Richard L. Lehman, Acting

FROM: FSE - William H. Stevenson

SUBJECT: Comments on Draft Environmental Impact Statement  
(Proposed 1980 Outer Continental Shelf Oil and Gas  
Lease Sales A62 and 62 Gulf of Mexico). (DOI/BLM)  
(DEIS #7910.10)

The draft environmental impact statement for the proposed 1980 Outer Continental Shelf Oil and Gas Lease Sale A62 and 62 Gulf of Mexico that accompanied your memorandum of October 5, 1979, has been received by the National Marine Fisheries Service (NMFS) for review and comment.

The statement has been reviewed and the following comments are offered for your consideration.

#### General Comments

A discussion of potential oil and gas development impacts on marine mammals should be included in the EIS. The discussion should include the effects of oil spills on the bottlenose dolphin and whales which are found in the Gulf of Mexico.

#### Specific Comments

##### I. THE PROPOSAL

##### E. Description of the Proposal

##### 4. Mitigation Via Lease Stipulations

a. Biological Stipulation, page 14. A stipulation should be added to protect and maintain small fishing banks. To safeguard these banks (1,000 acres or less), structures should not be placed either temporarily or permanently on the top or slope of these banks.

Also, any construction of platforms or drilling on larger snapper or grouper banks where recreational fishing occurs should be limited to the period of November 1 through June 1. The shunting

Rec'd PP/EC  
68 NOV 1979

16-1

16-2

16-3



16 4 of discharges should not be allowed within three nautical miles of the 100 m. isobath. This would protect living marine resources associated with reefs or hard banks between the 80-90 m. isobaths.

#### IV. ENVIRONMENTAL CONSEQUENCES

##### A. General Impact Producing Factors and Related Environmental Consequences

###### 1. Routine Production Activities

16 5 a. Discharge of Cleaned Drilling Muds, Cuttings and Produced Formation Waters, page 69. Although BLM requires that all pipelines in waters less than 200 ft. deep be buried, the NMFS continues to recommend that all pipelines placed in waters less than 300 feet deep be buried at least 3 ft. below the seafloor to reduce the possibility of both pipeline and fishing gear damage in the brown shrimp fishing grounds. This should be addressed in the EIS.

##### B. Environmental Impacts of the Proposal and Alternatives

###### 1. Alternative "A"--Hold the Sale as Proposed

16 6 f. Impact on Endangered Species, page 89. The six endangered whales, (Sei, fin, blue, right, humpback and sperm whale) should be included in this discussion.

#### VIII. APPENDICES

16 7 Appendix E, Biological Opinions, page 153. The copy of the letter to Mr. Donald P. Truesdell from Terry L. Leitzell dated March 29, 1979, does not have the enclosure referenced in the letter. This enclosure should accompany any reproduction of the subject letter.

CLEARANCE:

SIGNATURE AND DATE

F7:KROBERTS

cc:  
F7(3)  
FSE612  
FSE613

Rec'd PP/EC  
Oct. 19, 1979

15 October 1979

TO: Stanley L. Rosenthal, Director NHEML

FROM: Jeff Hawkins

SUBJECT: NHEML comments regarding Environmental Impact Statement for Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62.

The majority of issues discussed and actions proposed do not touch on areas of expertise at NHEML. However, there is consistent disregard and apathy towards potential hurricane related problems, since only one hurricane (Hilda, 1964) resulted in significant damage to platforms and subsequent oil spills (p. 74-75).

16-8

The two proposed sales of offshore oil leases involve shallow water locations covering essentially all of the Gulf of Mexico bordered from Brownsville, Texas to Destin, Fla. They neglect to realize that only three storms of category 4 or 5 have come ashore within this area of interest since 1932. Only one of these three, Camille (1969), affected more than just a few platforms. This study thus mentions, but does not realistically deal with, the possible perils associated with hurricanes. If the Gulf coast were to experience the five category 4 storms that occurred from 1900 - 1919, they would likely view them with their due respect.

Fortunately, some precautions have been inacted in recent years. These include the burial of common carrier pipelines in water depths less than 200 feet. "Since 1970, 73% of the total volume of oil spilled by pipelines was the result of ship anchors dragging across the pipeline, causing them to rupture". This would likely occur more often in hurricanes if ships did not have sufficient time to avoid the area. However, this should not be a problem if the proposed leases are sold and developed according to present regulations.

16-9

This study points out the possible dangers of a blowout similar to the Pemex well in the Bay of Campeche on June 3, 1979 (p. 74). But no mention is made of the effects tropical systems then had on the resulting oil slick. Substantial beach areas of Mexico and Texas were marred by oil due to strong





UNITED STATES DEPARTMENT OF COMMERCE  
Maritime Administration

58  
easterly winds associated with tropical depressions, storms, and/or hurricanes. Without these tropical systems, the normal wind regime and currents likely would have kept the oil offshore of these biologically sensitive regions.

16-10 | I would also take note with the statement "easterly waves and tropical storms appear in the Gulf during late summer and early fall" (P. 53). This is very misleading, since many of the early summer storms originate in the Gulf due<sup>n</sup> favorable synoptic conditions that exist no where else.

In conclusion, it should be noted that the proposed sales fall within areas climatologically favored for hurricane occurrence. Any additional oil platforms and pipelines are thus subject to possible harm from hurricane winds and ships which may be unable to navigate in such adverse weather. This increases the chances for catastrophic effects, since extensive breeding grounds exist in the countless estuaries along the Gulf coast.

Jeff Hawkins  
JH 10/15/79

October 29, 1979

MEMORANDUM FOR: Dr. Sidney R. Galler  
Deputy Assistant Secretary for Environmental  
Affairs

Subject: DEIS No. 7910.10 Proposed 1980 Outer Continental  
Shelf Oil and Gas Lease Sales A62 and 62 Gulf of  
Mexico

In accordance with your memorandum of October 4, 1979, the Maritime Administration has reviewed the subject document and submits the following comments for consideration:

Page 75, paragraph (5): *Ships Colliding with Platforms*: The last sentence of this paragraph states that: "More recently, the GLOBTIC SUN collided with a structure in West Cameron Block 534 with a total loss of both the vessel and the structure and some pollution reported as a result."

16-11 | It is felt that an accident of this magnitude, involving the loss of a 54,760 dwt tanker as well as the platform, is worthy of further detail such as the date of the accident; probable cause, weather conditions and the amount of oil estimated to have been spilled.

16-12 | Page 75, paragraph (6): *Tanker and Tank Barge Accidents and Operations*: The words "is hazardous" after "barges" in the first sentence are confusing and should be deleted.

*Kenneth W. Forbes*

for GEORGE C. STEINMAN  
Chief, Division of Environmental Activities  
Office of Shipbuilding Costs

UNITED STATES DEPARTMENT OF COMMERCE  
Bureau of Oceanic and Atmospheric Administration  
OFFICE OF ENVIRONMENTAL ASSESSMENT

Center for Environmental Assessment Services

November 5, 1979

OA/D23/ELR

Rec'd PP/EC  
NOV 13 1979

TO: PP/EC - R. Lehman

FROM: OA/D2 - K. Hadeen

SUBJECT: DEIS 7910 10 - Proposed 1980 Outer Continental Shelf Oil  
and Gas Lease Sales A62 and 62; Gulf of Mexico

16 13 | Page 10, paragraph D: The subject plan has been reviewed and has been judged adequate if the planned studies listed in paragraph D are accomplished. The accompanying charts provide a quick easy method of information presentations. We do note, however, that the prevailing surface currents in the Gulf of Mexico differ markedly between winter and summer and the summary charts should be seasonal rather than an annual summary. Events in the recent Campeche spill have demonstrated the effects of this seasonal flow.

16-1 The discussion of potential effects of oil and gas activities on marine mammals will be found in the Summary Impact Assessment, Appendix B of the DEIS 62 (i.e. - A.1.e. "No apparent negative impact from Gulf of Mexico OCS oil and gas activities."). Currently, we do not have data on the effects of oil spills on the bottlenose dolphin and whales which are found in the Gulf of Mexico.

We would welcome any data indicating any effects of oil and gas activities on marine mammals in the Gulf of Mexico.

16-2 Biological stipulations have been developed and are applied to all tracts in which oil and gas operations have the potential of harming the biota in areas of unique habitat. Stipulations on any additional tracts are not warranted.

16-3 Platforms are constructed onshore and are installed offshore within a very short period of time. Any negative impacts to recreational fishing at these banks during construction and drilling activities is insufficient to warrant the extreme prohibition suggested.

16-4 There is no evidence to support the contention that "... shunting of discharges should not be allowed within three nautical miles of the 100 m isobath." The biological stipulations, as developed over several years by the Department and as described in the DEIS, have been shown to be effective in protecting the biological resources of sensitive areas of the OCS; there is no reason to change them at this time.

16-5 At the present time there is insufficient evidence to even remotely justify requiring burial of pipelines in water depths greater than 200 feet.

The hang rate in waters where pipeline burial is required (less than 200 feet) is nearly the same as the hang rate for the non-burial zone (more than 200 feet). These rates are .98 and 1.2 respectively, the number of hangs apportioned by the effort.

Until there is evidence which indicates that the hang rate is much greater in the non-burial zone, one cannot logically conclude that burial in water depths greater than 200 feet will be beneficial, and justifiable, nor does it appear in the public interest to require costly burial when there are little or no benefits to be gained.

We will continue to evaluate this situation.

16-6 The Section 7 consultations with Fish and Wildlife Service and National Marine Fisheries Service considered the majority of the threatened and endangered species which inhabit the Gulf of Mexico region. The biological opinions of these agencies state there will be no jeopardy to these populations or their habitats as a result of this proposal. The discussion in this section addresses only those species which may be subject to potential risk as a result of this proposal.

The biological opinion submitted by NMFS considered the effects of Regional oil and gas development on endangered species in the Gulf of Mexico. We have included the complete biological opinion in the Appendix E of this FEIS.

16-7 Appendix E has been reprinted with the enclosure.

- 16-8 Hurricanes were not addressed prior to 1954 in order to correlate their occurrences with actual oil and gas development in the GOM. It is recognized that hurricanes and their associated perils are serious seasonal hazards in the GOM and that while there may not have been any category 4 storms in recent years, the potential always exists. Therefore, hurricanes will be addressed as a topic in a Regional Resource Document which is being developed by this office and tentatively scheduled for publication in mid-1980.
- 16-9 A sentence is inserted after the fourth line on page 75, following the sentence, "Since 1964 . . . Federal waters," to read as follows: "A tropical storm during the fall of 1979 exacerbated the impact of the Pemex Ixtoc-1 oil spill by bringing more oil onshore than would have normally been the case."
- 16-10 It is agreed this sentence should be clarified to indicate the unique characteristics of climatic conditions which exist in the GOM, as follows: "Due to favorable synoptic conditions that exist in the GOM, easterly waves and tropical storms appear there, starting in the early summer months."
- 16-11 While it is not the intent of the impact statement to give complete details of accidents but rather to call attention to those conditions which impact the sale area, the information was requested from the USCG and will be addressed in future EIS's.
- 16-12 The sentence has been deleted.
- 16-13 It is correct that there are seasonal differences in the major circulations patterns. Sufficient information is not at hand to reduce these trends to a simple visual. BLM is planning during 1980 to acquire runs on the DOE Gulf of Mexico Circulatory Model specific to BLM needs and to fund an additional study by NASA of the sea-surface conditions with the intention of synthesizing these results into a more effective and complete visual.



IN REPLY REFER TO: W750  
DES 79/57  
BLM

17

# United States Department of the Interior

HERITAGE CONSERVATION AND RECREATION SERVICE  
WASHINGTON, D.C. 20240

## Memorandum

To: Director, Bureau of Land Management (542)

From: Director, Heritage Conservation and Recreation Service

Subject: Review of Draft Environmental Statement for Proposed  
1980 Outer Continental Shelf Oil and Gas Lease Sales  
A62 and 62

This is in accordance with your September 28, 1979, memorandum requesting the review of the statement noted above.

We find that Alternative 2 in Appendix D is unacceptable. A multi-purpose survey would be efficient; however, we object to the initial analysis of data being done solely by a geophysicist. While a geophysicist is trained in a number of scientific fields, archeology is not one of them. Cultural phenomena discovered in underwater surveys are often difficult to interpret, requiring a professionally trained underwater archeologist to do the analysis. By not utilizing the archeologist at the beginning of the analysis, valuable cultural resources may be missed.

17-1

Chris Therral Delaporte

17-1 Your comments about Appendix D are noted and will be considered along with other comments received.

NOV 26 1979

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426

- 2 -

Manager, New Orleans OCS Office  
Bureau of Land Management  
500 Camp Street, Suite 841  
New Orleans, Louisiana 70130

Dear Sir:

We appreciate the opportunity to comment on the draft environmental impact statement (DEIS) evaluating the proposed Gulf of Mexico Outer Continental Shelf (OCS) Oil and Gas Lease Sales A62 and 62. The Federal Energy Regulatory Commission's (FERC) Office of Pipeline and Producer Regulation (OPPR) offers the following comments.

(1) The statement on page 6 does not delineate the FERC's functions from those of the Department of Energy (DOE). It would be more accurate to state that the FERC, an independent agency within DOE, had conferred upon it under the Natural Gas Act the authority to issue certificates of public convenience and necessity for proposed projects involving the transportation or sale of natural gas in interstate commerce. All natural gas produced from the OCS is considered to be interstate and therefore is subject to FERC jurisdiction. The Natural Gas Act, the National Environmental Policy Act, and the OCS Lands Act Amendments of 1978 grant authority or require that the FERC investigate the environmental effects of a proposed offshore project, as well as the potential gas reserves, the need for this gas, and the availability of capital to develop this resource. Also, the FERC is primarily responsible for administering and enforcing compliance with the Natural Gas Policy Act (NGPA) of 1978 (92 Stat. 3350). As applied to OCS matters, the NGPA provides new wellhead pricing controls for certain natural gas produced from the OCS.

The Commission is directing its attention and efforts toward regulatory actions which will improve domestic natural gas supplies. We believe the proposed Gulf of Mexico oil and gas lease sale would allow the transporting of hydrocarbon supplies to market quickly at low cost because of the availability of existing pipeline transportation networks and onshore infrastructure in this area. Scheduling these two lease sales at this time thus supports the principle of maximizing the economic benefits by scheduling the more beneficial lease sales first.

The Commission staff recognizes the national importance of OCS exploration and development, as well as the need for effective environmental safeguards. Based upon a review of your DEIS, we believe that the proposed OCS oil and gas lease sale is in the national interest.

Very truly yours,

*Kenneth A. Williams*

Kenneth A. Williams, Acting Director  
Office of Pipeline and Producer  
Regulation

18-1

18-1 Your comments clarifying FERC's authority are appreciated and will be included in future impact statements.

United States Department of the Interior

Bureau of Land Management

Washington, D.C. 20240

Memorandum

To: Director, Bureau of Land Management  
Acting Assistant Secretary

From: Director, Fish and Wildlife Service

Subject: Review of Draft Environmental Impact Statement for Proposed  
OCS Oil and Gas Lease Sale Nos. A-62 and 62

The following comments are provided in response to the Bureau of Land Management's (BLM) September 28 request for our review of the Draft Environmental Impact Statement for OCS Lease Sale Nos. A-62 and 62.

I. E. Description of the Proposal

The description of the four types of biological stipulations on Page 15 is somewhat misleading. Not all of the type "2" banks occur near the shelf break. Several of these banks are found in mid-shelf position in the South Texas OCS area. We would like to again point out that the selection of the 85 meter depth contour to define the no-activity zone surrounding banks and reefs may be insufficient in cases where drilling operations occur immediately adjacent to a bank. For example, if a well were drilled at a water depth of 85 meters, the shunted discharge would occur at a depth of 75 meters, placing it directly on the lower reach of the area of biological significance. Concern for drilling operations adjacent to offshore banks has also been brought up recently by BLM contractors studying offshore banks. To deal with this problem we recommend that the 100 meter depth contour be used to define the no-activity zone surrounding offshore banks and reefs.

The Fish and Wildlife Service (FWS) objects to the reduction of the degree of protection for Sackett Bank as reflected on Page 20 in stipulation No. 4. At the August 16, 1979 meeting of the S.O. 2974 group to discuss stipulations for proposed OCS oil and gas lease sale No. 62, the BLM recommended this reduction from the standard stipulation that has been applied to Sackett Bank. The FWS opposed reducing the stipulation at this meeting and remains in total opposition to the reflected change. Studies have not generated adequate information about Sackett Bank to warrant a reduction in the level of protection afforded this Bank, but rather points to the potential for increasing protection and monitoring

-2-

efforts for this Bank in light of the recorded stress on the carbonate reefal communities. From the water quality conditions associated with the Mississippi River outflow, any further potential for disturbance to this Bank from oil and gas activities should be stringently controlled and monitored. To reduce the protective and monitoring requirements of this stipulation appears to be a move toward "writing off" Sackett Bank as an expendable resource since the hydrography and turbidity associated with the Mississippi River outflow are limiting the development and growth of these substantial reefal communities. To make this assumption and to compound it with the hypothesis that the potential for further detriment from oil and gas activities will not be noticed is neither substantiated nor warranted. In terms of proper precautions for Sackett Bank, FWS recommends that Sackett Bank be classed as a second priority Bank, along with Stetson and Sonnier Banks (see Bright, et al, 1978, Conclusion). The standard stipulation has been applied to both of these Banks and should remain for Sackett Bank.

III. D.1. Land Use

The Rio Grande, Guadalupe, Brazos, and Neches Rivers should be added to the list of principal rivers along the Texas Coast on Page 58. This section should also be changed to indicate that all or most of the flow of the Rio Grande, Colorado, and Brazos Rivers goes directly into the Gulf, not into the bays.

IV. A.2 Oil and Gas Spills and Other Accidents

It should be noted that a relief well for the Bay of Campeche oil spill was not completed in mid-September as indicated on Page 74 of the DEIS.

IV. B. Environmental Impacts of the Proposal and Alternatives

Perhaps the greatest potential impacts of offshore oil and leasing activities occur in the sensitive coastal zone. Although threats to coastal resources are dealt with indirectly in other sections in the DEIS, it is recommended that the loss and degradation of coastal estuarine and wetland habitats be included in Section IV. B. Particular attention should be placed on the effects of onshore facilities, navigation channels, pipelines, and oil spills.

IV. C. Impact on Air Quality

The units (mg/yr) for the offshore facility emissions on Page 86 of the DEIS seem to be unrealistically low and should be verified.

We appreciate the opportunity to comment at this time.



19-1 The brief description on page 15 was meant, as is noted on the bottom of page 14, to be general and it is recognized that conditions may vary somewhat from the description. We agree that not all of the banks to which the stipulation described in paragraph 2 on page 15 would be applied are near the shelf break. It should be noted, however, that the numbers of the paragraphs 1 through 4 on page 15 are not meant, and should not be taken, to indicate priority nor importance. We disagree that there is any need to use the 100 m isobath rather than the 85 m isobath to define the no-activity zone. While some hard bank type organisms may indeed exist on some banks at depths deeper than 85 m, the sensitive and productive communities which the stipulations are designed to protect are found shallower than 85 m. In fact, there are likely banks at which these communities stop significantly shallower than 85 m. In our judgement, the 85 m isobath remains an effective and viable parameter upon which to base management decisions, and that no compelling evidence exists to warrant changing that parameter to 100 m.

19-2 There is no "reduction of the degree of protection for Sackett Bank . . ." Tracts near Sackett Bank have been leased - and drilled - in the past, but without any biological stipulations. There is no existing stipulation at that Bank to reduce. The stipulation proposed in the DEIS would prohibit operations on the Bank and would require shunting within 1 nmi of the Bank; these restrictions have been shown to be effective in protecting the biota of offshore banks by numerous monitoring studies conducted by both BLM and the industry. Although requiring shunting or monitoring in the area of 1 to 3 nmi of the Bank will not necessarily increase the protection afforded the Bank, we have agreed to impose this requirement at the insistence of USFWS, even though in our judgement shunting beyond 1 nmi is not necessary at Sackett. We quote from the study mentioned in the comment: "Biologically and structurally, Sackett Bank could be classified as a very depauperate and regressing category no. 1 bank. In terms of environmental priority, however, it is closer to category no. 3" (page XIII-3).

Finally we take exception to the implication that a "standard" stipulation should apply to all banks. USFWS is well aware of the need to consider differences exhibited by individual banks and areas in designing effective protective stipulations. We must utilize the newer and better information that we are continually receiving from BLM monitoring studies and those industry-funded, stipulation-required studies. Sackett Bank is significantly different, biologically, from the Flower Gardens, and both are significantly different from Sommer Banks. To force a "standard" stipulation on such different areas is clearly inappropriate and would offer little toward more effective mitigation or efficient lease management.

19-3 Your comments are noted.

19-4 Your comments are noted.

19-5 During the entire scoping process of this Sale, the coastal estuarine and wetland habitats of the Gulf of Mexico Region did not surface as a major or significant issue. For this reason, it was indirectly dealt with in other sections of the DEIS, as you have stated.

Regarding the impacts of pipeline activities in the estuarine wetlands, several conclusions may be drawn (Willingham, et. al., 1974) and include the following:

" . . . analysis revealed that few effects of coastal pipelining are universal and each site is unique in its environmental impact."

"Results . . . suggest that loss of land was usually associated with a simultaneous loss of vegetation. In general, there is a loss of land and vegetation where marshes substrates are too fluid and soft to provide backfill materials for the 'flotation ditch.'"

" . . . it is important to note that, although levees, berms, and canals resulting from gas pipelining activities greatly alter old habitats, they provide new habitats for invasion by animals. Indeed, such new habitats may serve as more desirable habitat for certain kinds of animals than does the unaltered marsh habitat."

" . . . the canals were found often to be less productive than Gulf waters and never as productive as equivalent marsh areas."

" . . . depending on the pipeline construction technique employed and the nature of the substrate in which the pipeline is laid, effects range upward from nominal to a complete change in habitat."

"Of the various pipeline construction techniques currently used, the one responsible for creating the highest impact is the "flotation" canal method. Used when the substrate is too fluid for conventional pipelining operations, the flotation canal technique converts a marsh habitat to an aquatic habitat."

"Where the canals have been isolated from the estuary by placement of bulkheads, production is low."

"Construction of pipelines by the "push" method in firm substrates is considered to least alter the existing condition of coastal marshes by minimizing loss of land and vegetation."

The author concurs with the above and realizes the need for further research concerning the effects of onshore facilities, navigation canals, pipelines and oil spills. Some of the effects are obvious and mitigating measures have been suggested. In addition, one of the objectives of USFWS ecological characterizations along the Gulf Coast will point out future research needs which will alleviate uncertainty and answer decision makers' questions.

19-6 The figures were obtained from EPA-450/3-77-026, page 129, June 1977, "Atmospheric Emissions from Offshore Oil and Gas Development and Production."



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The Draft Environmental Impact Statement (DEIS) for Oil and Gas Lease Sales A62 and 62, prepared by the Bureau of Land Management, has been reviewed by the Budget and Planning Office and interested state agencies. Copies of the review comments are enclosed for your information and use. It should be noted that comments on the supplement to the DEIS are also being transmitted by this letter.

Several comments of agencies contain suggestions for your consideration prior to issuing the final environmental impact statement. The Texas Antiquities Committee recommended clarification in wording regarding the conduct of underwater cultural resource surveys. The Texas Department of Water Resources noted that some 60 percent of onshore impacts resulting from the proposed lease sales will be felt in Texas. This agency pointed out that additional data was needed to support the statements made about net fiscal impacts which would be felt by Texas coastal counties. The Texas Department of Health concluded that no significant public or environmental health problems would result from these proposed lease sales, due to the stringent requirements imposed on offshore oil and gas operators. Texas A&M University was complimentary of the environmental impact statement, but did provide certain information and suggestions for clarification purposes. In addition, the Attorney General's Office noted that additional data on oil spill risks might now be available, in view of the recent oil spills in the Gulf of Mexico.

The Budget and Planning Office appreciates the opportunity to review this draft environmental impact statement and supplemental information. If we can be of further assistance in this matter, please do not hesitate to call on us.

Sincerely,

Leon Willhite  
Leon Willhite, Manager  
General Government Section  
Budget and Planning Office

rh  
Enclosures



DR. FRED WENDORF  
Chairman

TRUETT LATIMER  
Executive Secretary

BOB ARMSTRONG

CHARLES D. TRAVIS

DR. W.C. HOLDEN

DR. WILLIAM G. REEDER

CURTIS TUNNELL

October 15, 1979

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning Office  
411 W. 13th Street  
Austin, Texas 78701

Attention: General Government

Dear Mr. Wrotenbery:

RE: BLM 1792.2 (300)  
DEIS Sale #A62, 62

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OCT 27 1950

Thank you for sending the DFIS for Lease Sales Nos. A62 and 62 ~~Budget Review~~. I have considered the sections on cultural resources and have the following comments. Concerning the Cultural Resources Stipulation on p. 23 and in the case where cultural resource indicators are present you state that there might be "further archeological investigation conducted by a qualified marine survey archeologist or underwater archeologist..." The marine survey archeologist is certified by the Society of Professional Archeologists for electronic surveys and data interpretation only. Various methods of site test excavation or physical analysis could be appropriate in the second phase of investigations which we are considering here. This calls for a different set of qualifications. All marine survey archeologists are not necessarily fully qualified underwater archeologists. Minor changes in your wording are necessary in recognition of this factor.

I was glad to note on p. 24 that the Department of Interior is still considering revising the Notice to Lessees and Operators concerning underwater cultural resource surveys. In my opinion the NTL needs to be tightened up considerably.

Concerning Appendix C, p. 147 (2.b.). I would suggest that all anomalies be plotted on the map, identified as well as unidentified, with perhaps a different symbol to differentiate. I think you are on the right track in beefing up the report standards.



# The Attorney General of Texas

November 16, 1979

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NOV 19 1979  
Budget/Planning

Mr. Paul T. Wrotenbery  
October 15, 1979  
Page two

Concerning Appendix D, p. 151, alternative 2, I would say that it would be a grave mistake to leave the preliminary data analysis completely to a geophysicist. To ensure proper regard and protection for cultural resources a qualified archeologist must be included in preliminary data analysis. Alternative 1 includes only one of a number of much needed improvements in the NPL.

Your consideration of these points will be appreciated.

Sincerely,

For Truett Latimer  
State Historic Preservation Officer

*J. Barto Arnold III*  
J. Barto Arnold III  
Marine Archeologist

JBA:jc

MARK WHITE  
Attorney General

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Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning Office  
411 West Thirteenth Street  
Austin, Texas

Attn: General Government

Dear Mr. Wrotenbery:

Request of this office has been made with regard to comments concerning OCS oil and gas lease sales A62 and 62.

The Attorney General's Office is concerned with and has the responsibility to protect the public rights to the beach under Chapter 61 of the Natural Resources Code.

In regard to the Environmental Impact Statement prepared by the Bureau of Land Management, it is our feeling that the data used in addressing the risks created by potential oil spills appears to have been developed prior to recent oil spills in the Gulf of Mexico. We would hope that all possible data be utilized in this study to assure a complete and accurate assessment.

Should we be able to provide additional comments, please contact us.

Yours truly,

*John W. Painter, Jr.*

John W. Painter, Jr.  
First Assistant Attorney General

JWF:KL

20-5

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November 6, 1979

Mr. Paul T. Wrotenberg, Director  
Government Budget and Planning  
Office

Attention: General Government  
411 West 13th Street  
Austin, Texas 78701

Subject: Draft Environmental Impact Statement: Proposed OCS Oil and  
Gas Lease Sales A62 and 62, located in the Gulf of Mexico,  
prepared by Bureau of Land Management, Department of the  
Interior. EIS 9-10-50-039

Dear Mr. Wrotenberg:

We have no objections to this document. During normal day-to-day operations the air contaminant emissions associated with the project, as described, will have an insignificant impact on ambient air quality. Operating procedures and plans designed to prevent or quickly control spills, upsets, or well blowouts appear to be adequate to prevent significant buildup of associated air contaminant emissions. The proposed activities are consistent with the Texas Air Pollution Control Implementation Plan.

Thank you for the opportunity to review this document. If we can be of further assistance, please contact me.

Sincerely,

Respectfully,  
Respect R. Wallis, Deputy Director  
Standards and Regulations Program

cc: Mr. Lloyd Stewart, Regional Supervisor, Houston  
Mr. Howard Baker, Regional Supervisor, Beaumont  
Mr. Bob Gorman, Regional Supervisor, Dallas  
Mr. Tom Palmer, P.E., Regional Supervisor, Corpus Christi

Mr. Paul T. Wrotenberg, Director  
Budget and Planning Office  
Executive Office Building  
411 West 13th Street  
Austin, Texas 78701

Dear Mr. Wrotenberg:

Re: U.S. Department of the Interior, Bureau of Land Management (BLM) -- Draft Environmental Impact Statement (DEIS) -- Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62, Gulf of Mexico. September 1979. (EIS No. 9-10-50-039 and EIS No. 9-10-50-202).

In response to your memorandum of October 4 and 18, the Texas Department of Water Resources (TDWR) has reviewed the referenced DEIS, and the DEIS Supplement dated October 8, 1979. The proposed Lease Sales A62 and 62 originally included 296 tracts, totaling approximately 1,517,787 acres in Federal waters offshore Texas, Louisiana, Mississippi, Alabama, and Florida. Sale A62 involved 222 tracts in central and eastern Gulf of Mexico, totaling approximately 1,099,057 acres, ranging from 3 to 104 nautical miles from shore in waters from 12 to 2,170 feet deep. Sale 62 involved 74 tracts in the western Gulf of Mexico, totaling approximately 418,730 acres, ranging from 11 to 99 nautical miles offshore, in waters from 30 to 1,460 feet deep. Approximately 57.2 percent of the Sale A62 tracts are gas-prone, 19.4 percent of the tracts are oil-prone, and 23.4 percent of the tracts are both oil and gas-prone. All Sale 62 tracts are gas prone. The proposed Sales A62 and 62 are estimated to increase domestic oil production by a mean average of 27.1 million barrels per day (bpd). This quantity nearly equals a one-day supply, based on current U.S. consumption rates, or nearly 3.3 days of imported oil at a rate of 7.9 million bpd. Gas production from the tracts of Sales A62 and 62 is estimated at 735 billion cubic feet. (Reference: DEIS, Sec. 4.a, Alternative "A", pp. iv and vii.) The Bureau of Land Management estimates that investments totaling \$1.5 billion will result from Sales A62 and 62. (DEIS, p. 12.)

The cited DEIS Supplement dated October 8, 1979, subsequently indicated that the scope of Sale A62 was revised by adding seven tracts, totaling 32,847 acres, and deleting 57 tracts (A62-185 through A62-221), totaling 213,120 acres, located on the Destin Dome anticline located 28 to 45 nautical miles south of Destin, Florida. In addition, one tract in the West Cameron Area, South Addition was also deleted. The above-mentioned 57 tracts in the Destin Dome area are materially significant because they are oil prone and contain an estimated 59 percent (i.e., 6 to 19 million barrels) of the oil reserves involved in Sale A62. (Reference: DEIS, Sec. 11 B.2.a, pp. 35 & 36.)

From the standpoint of water resources responsibilities within its statutory purview, DWR believes that the following special assumptions, findings of fact, and recommendations presented in the DEIS constitute reasonable assurances that the net potential impacts of the proposed Sales A-2 and 62 on the State of Texas have been identified, adequate preventive measures have been specified where necessary, and further action also has been identified where necessary:

1. Special Conditions Relative to the East and West Flower Garden Banks  
(Reference: DEIS, Sec. 1.E.2.b, p. 6, and Sec. 1.E.4.a.3, p. 15).

Statement is made that "...for this sale no tracts are being offered near the Flower Gardens." (However, in this regard, attention is invited to Visuals 301, 1 and 2, relative to the western and central Gulf of Mexico, and DEIS, Sec. VII, App. "A", p. 137, which indicate that four proposed lease tracts 62-66, 62-67, 62-68, and 62-69, in blocks A-545, A-569, A-576, and A-578, respectively, of the High Island Area, South Addition are near the West Flower Garden area.) Also, we note the statement (DEIS, p. 6) that "...EPA has under consideration stringent permit conditions for discharge near the East and West Flower Garden Banks (EPA's proposed marine sanctuary)." Thus, clarification should be furnished if, in fact, the deletion of proposed lease tracts near the Banks is an interim decision pending EPA's development of permit conditions governing the discharge of wastes near the Banks.

2. Basic Development Assumptions (Reference: DEIS, Sec. 1.E.2, p. 11).

DWR notes the following relevant development assumptions adopted for the referenced sales: a) "No additional onshore support facilities or refineries would be necessary." b) "A maximum of three onshore terminals or storage facilities would be located in the vicinities of Corpus Christi, Texas (just north of Padre Island National Seashore) ... and a maximum of three pipeline landfalls in those same areas ..." c) "One major oil spill greater than 1,000 barrels during sale production (excepting the Texas tract area which is gas prone)."

3. Results of Comprehensive Scope of Impact Analysis (Reference: DEIS, Sec. 1.E.5, pp. 11 and 14; App. B, Summary Impact Assessment, pp. 141 to 144).

DWR notes the following relevant findings:

a. On an areawide basis, the maximum population increase in local areas where onshore operations bases are anticipated are expected to be less than 1% of the total existing population. (DEIS, p. 113.) Specifically, for the nine Texas Counties affected (Jefferson, Harris, Galveston, Chambers, Brazoria, Buecker, Aransas, Ellzey, and Cameron) the proposed lease sales are expected to generate an increase

of 2,396 residents during the 1981-1987 period, representing a 0.07-percent increase in population, based on the estimated 1979 population for the affected counties. (DEIS, p. 83.)

b. On an areawide basis, the total housing demand for estimated new resident employees is estimated at about 1,412 housing units (HU), representing a small percentage of the existing housing stock, and which could be met with existing vacancies and a limited amount of new homes. (DEIS, p. 143.) Specifically, for the nine Texas Counties affected, the additional demand for housing generated by the proposed sales during the period 1981-1987 is estimated to be 832 HU, representing 58 percent of the total estimated 1,412 HU demand generated by the proposed lease sales. (DEIS, p. 85.)

c. On an areawide basis, the estimated short-term direct employment job opportunities vary between 374 to 1,507 over an eight-year exploration and development phase period; and, the long-term direct employment job opportunities vary between 280 and 350 over an estimated ten-year production phase period. (DEIS, p. 143.) Specifically, for the nine Texas counties affected, the estimated total employment generated by the proposed lease sales, compared to the total for all coastal counties in the five state area, affected by the proposed lease sales, is tabulated below (DEIS, p. 82):

Impact Area	Cumulative Totals				Annual Increase	
	1982	1984	1987	1992	1981-1984	1981-1987
Nine Texas counties	232	2441	2590	1015	1221	453
Twenty Counties or Parishes in Texas, Louisiana, and Florida	519	4144	4412	1557	2072	755

d. On an areawide basis, it is indicated in the referenced DEIS that the expected increases in population of local areas are not expected to lower the quality of water supply, sewage treatment, solid waste disposal, and related community support utilities and services. (DEIS, App. B, p. 143.)

DWR's analysis of the impact assessments the above-mentioned four indicator elements (i.e., population, housing, employment, and water and related utilities) indicates that the impacts on the State of Texas counties is relatively more pronounced than those expected in the other

Mr. Paul T. Wrotenbery  
October 30, 1979  
Page 4

affected coastal counties and parishes of the five-state area involved in the proposed Sales A62 and 62. Therefore, the following general evaluation relative to "Local Fiscal Balance," and "Land Use Conflicts and Competition," shown on page 144 of the Summary Impact Assessment, presented in Appendix B of the DEIS, appear to be unsupported, insofar as the Texas coastal counties are concerned:

"Local public revenue generated by OCS activity is expected to equal or exceed the additional net requirement for increased local public expenditures for government services. No increase in local revenue production measures... should be necessitated by the proposed lease sale."

"Use of existing operation bases, building space and industrial sites in Louisiana, Texas, and Florida with only minor additional acreages requirements is assumed. No refineries or gas processing plants or acreages for expansion of existing facilities is assumed. Three additional or expanded shore terminals (including storage facilities), one each in Florida, Louisiana, and Texas will require up to 40 acres per site. This land is expected to be in accordance with local planning and zoning and Coastal Zone Management Regulations so that actual land use conflicts and environmental impacts will be small."

In contrast to the above-quoted evaluation, TDWR's analysis of Coastal Energy Impact Program (CEIP) grants, as authorized under the Coastal Zone Management Act, indicates that Texas coastal communities do sustain adverse fiscal and environmental impacts which are not fully offset by energy-related revenue. The DEIS (Sec. IV.B.1, p. 34) notes the importance of the CEIP to assist States and communities in the "planning and financing of facilities and services to avoid or alleviate potential adverse effects of coastal energy developments."

1. Special Mitigating Actions (Reference: DEIS, Sec. I.E.5, pp. 26-28).

TDWR notes the special assurances regarding the federal implementation of the National Oil and Hazardous Substances Pollution Contingency Plan, oil spill modelling and preventive measures, and the undertaking of detailed, accurate mapping of the locations of all pipelines and platforms in the Gulf of Mexico (U.S.).

TDWR appreciated the opportunity of participating in the interagency review of the referenced DEIS. Analysis indicates that about 60 percent of the anticipated impacts of the proposed Lease Sales A62 and 62 will be felt in Texas. However, in view of the extensive assurances provided in the DEIS, as discussed in the preceding comments, TDWR foresees no insuperable inconsistencies between the proposed oil and gas operations, and TDWR's statutory responsibilities and activities relative to State of Texas water resources planning, development,

Mr. Paul T. Wrotenbery  
October 30, 1979  
Page 5

and regulation. TDWR will continue to work closely with all agencies involved in order to assure that a reasonable degree of consistency is achieved in the planning development relative to the coastal zone. Therefore, please advise if we can be of further assistance.

Sincerely,

*Harvey Davis*

/s/ Harvey Davis  
Executive Director

TEXAS A&M UNIVERSITY

COLLEGE OF GEOSCIENCES

COLLEGE STATION TEXAS 77843

20 November 1979

Reply to  
Department of  
OCEANOGRAPHY

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NOV 26 1979

Budget/Planning

To: Mr. John Goslin  
Office of the Governor  
411 W. 13th Street  
Austin, TX 78701

SUBJECT: Environmental Impact Statement, Oil and Gas Lease Sales A62  
and 62, Gulf of Mexico

Drs. R. Rozak, D. McGraff, T. Bright, and I reviewed subject  
document which appears to cover requirements. ELM is to be  
complimented for a job well done.

Our comments include:

1. (Page 8, 8th par.) If the disposal of industrial wastes is  
permitted only on land-based alternatives, EPA must reevaluate the  
requirement in light of energy needs, benefits, and the costs of  
energy development which will ultimately be distributed to the  
consumers and taxpayers.

2. (Page 10, 4th par.) The first "unnamed bank" is 28 Fathom  
Bank, Southwest Peak; the second is 23 Fathom, Southwest Peak; and the  
third is Bright Bank.

3. (Page 11, Mironov) Editing required.

4. (Page 121, 1st par.) Recommend list be modified so that State  
agencies are listed under each State, e. g.

State of Texas  
Office of the Governor  
Texas Historical Commission  
Texas Antiquities Commission  
Texas A&M University (Oceanography)

Joseph H. LeBlanc, P. F.  
Program Manager

JHL:lp

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FRANK H. LEWIS  
WILLIAM D. PARISH

November 13, 1979

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning  
Office  
411 West 13th Street  
Austin, Texas 78701

Attention: General Government

Subject: Supplement to Draft Environmental Impact Statement: Proposed  
OCS Oil and Gas Lease Sales A62 and 62, Gulf of Mexico  
EIS 9-10-50-202

Dear Mr. Wrotenbery:

Our response, forwarded November 5, 1979, concerning the previously  
received Draft Environmental Impact Statement (DEIS) for the Proposed  
OCS Oil and Gas Lease Sales A62 and 62 located in the Gulf of Mexico  
included a discussion of the areas identified in this document. These  
comments of ours regarding this project remain applicable. A copy of  
them is enclosed.

Thank you for the opportunity to review this document. If we can be  
of further assistance, please contact me.

Sincerely,

Roger R. Wallis, Deputy Director  
Standards and Regulations Program

Enclosure

cc: Mr. Lloyd Stewart, Regional Supervisor, Houston  
Mr. Howard Baker, Regional Supervisor, Beaumont  
Mr. Bob Guzman, Regional Supervisor, Harlingen  
Mr. Tom Palmer, P.E., Regional Supervisor, Corpus Christi

20-9

20-10

TEXAS  
PARKS AND WILDLIFE DEPARTMENT



CHARLES D. TRAVIS  
EXECUTIVE DIRECTOR

4200 Smith School Road  
Austin, Texas 78745

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ENGINEER DIRECTOR  
L. L. DEBERRY

October 18, 1979

November 5, 1979

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning Office  
Attention: General Government  
411 West 13th Street  
Austin, Texas 78701

RE: OCS Oil and Gas Lease Sales A62 and 62,  
Supplement to DEIS (EIS #9-10-50-039)

Dear Mr. Wrotenbery:

The Texas Parks and Wildlife Department has reviewed the above-referenced proposed project, forwarded by letter dated October 18, 1979, and has no comments to offer.

Thank you for the opportunity to review and comment on this document.

Sincerely,

CHARLES D. TRAVIS  
Executive Director

CDT:RUS:dsb

Draft Environmental Statement  
Bureau of Land Management  
Proposed 1980 OCS Oil and Gas Lease Sales

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning Office  
Attention: General Government  
411 West 13th Street  
Austin, Texas 78701

Dear Mr. Wrotenbery:

The Department has no comment to offer regarding the Bureau of Land Management's proposed 1980 Outer Continental Shelf oil and gas lease sales A62 and 62. Thank you for the opportunity to review this statement.

Sincerely yours,

B. L. DeBerry  
Engineer-Director

By:   
Marcus L. Yancey, Jr.  
Asst. Engineer-Director

RECEIVED

OCT 18 1979

Budget/Planning

IN REPLY REFER TO  
FILE NO.

20 11

20-12



# Texas Department of Health

Raymond T. Moore, M.D.  
Commissioner  
A. M. Donnell, Jr., M.D., M.P.H.  
Deputy Commissioner

1100 West 49th Street  
Austin, Texas 78756  
(512) 458-7111

October 31, 1979

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning Office  
Executive Office Building  
411 West 13th Street  
Austin, Texas 78701

ATTENTION: General Government

SUBJECT: Proposed 1980 Outer Continental Shelf Oil and Gas  
Lease Sales A62 & 62  
Gulf of Mexico  
Environmental Impact Statement  
Bureau of Land Management

Dear Mr. Wrotenbery

The Environmental Impact Statement prepared by the Bureau of Land Management for the Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 & 62 in the Gulf of Mexico has been reviewed for its public and environmental health implications.

During the five year period between 1971-1975, there were 5857 oil spills with a total volume of 51,411 barrels reported in the outer continental shelf of the Gulf of Mexico. The vast majority of these spills was small with 99.7% involving spills of less than 50 barrels and 85% of less than one barrel. Only eight major spills (10,000 gallons or more) accounting for a total volume of 43,981 barrels were reported--including one of 19,833 barrels in 1974. These oil spills have been caused by pipeline accidents, blowouts, explosions, fires, storms and tanker or barge accidents. Tanker and barge spill rates are reported to be higher than the total of all other outer continental shelf spills rates. However, tanker activity is not expected to increase as a result of the proposed lease sale since most of the expected oil production would be piped ashore.

The (current) massive oil spill in the Gulf of Campeche and its impact on the Texas Coast has led interested governmental agencies to more sharply focus attention on the need to develop additional measures to prevent or mitigate potentially harmful impacts related to outer continental shelf activity.

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NOV 7 1979

SUBSET. Planning

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Richard W. Ragsdale  
Kathleen Roostin

Mr. Wrotenbery  
Page Two  
October 31, 1979

Based on the limited additional activity expected to result from proposed lease sales A62 & 62, the stringent requirements imposed on such activity by governmental agencies and the fact that the impact of the Gulf of Campeche oil spill on the Texas Coast has not resulted in significant public or environmental health implications to date, it is this Department's opinion that the proposed lease sales will not result in significant public or environmental health problems.

The above comments are also applicable to, and reflect our review of, the Supplemental Environmental Impact Statement (to the subject Environmental Impact Statement) received by your letter of October 18, 1979.

We appreciate the opportunity to review and comment on the public and environmental health implication of the proposed Gulf of Mexico oil and gas lease sales.

Sincerely,

G. R. Herzik, Jr., P.E.  
Deputy Commissioner for Environmental  
and Consumer Health Protection

DLH/re

ccs: Bureau of State Health Planning  
and Resource Development, TDH  
Public Health Region 8, TDH  
Public Health Region 10, TDH  
Public Health Region 11, TDH  
Division of Shellfish Sanitation  
Control, TDH

TEXAS  
PARKS AND WILDLIFE DEPARTMENT



## MEMORANDUM

PERCY H. BASS  
Chairman, Fort Worth

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Vice Chairman, Dallas

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Austin

CHARLES D. TRAVIS  
EXECUTIVE DIRECTOR

4200 Smith School Road  
Austin, Texas 78744

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Dallas

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OCT 16 1979

Budget/Planning

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning Office  
Attention: General Government  
411 West 13th Street  
Austin, Texas 78701

RE: Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales  
A62 and 62

Dear Mr. Wrotenbery:

The Texas Parks and Wildlife Department has reviewed the above-referenced Environmental Impact Statement, forwarded by letter dated October 4, 1979, and has no comments to offer.

Thank you for the opportunity to review and comment on this document.

Sincerely,

CHARLES D. TRAVIS  
Executive Director

CDT:BDR:dsb

November 5, 1979

Mr. Paul T. Wrotenbery, Director  
Governor's Budget and Planning  
Office  
Attention: General Government  
411 West 13th Street  
Austin, Texas 78701

Subject: Draft Environmental Impact Statement: Proposed OCS Oil and  
Gas Lease Sales A62 and 62, Located in the Gulf of Mexico,  
Prepared by Bureau of Land Management, Department of the  
Interior. EIS 9-10-50-039

Dear Mr. Wrotenbery:

We have no objections to this document. During normal day-to-day operations the air contaminant emissions associated with the project, as described, will have an insignificant impact on ambient air quality. Operating procedures and plans designed to prevent or quickly control spills, upsets, or well blowouts appear to be adequate to prevent significant buildup of associated air contaminant emissions. The proposed activities are consistent with the Texas Air Pollution Control Implementation Plan.

Thank you for the opportunity to review this document. If we can be of further assistance, please contact me.

Sincerely,

Roger R. Wallis, Deputy Director  
Standards and Regulations Program

cc: Mr. Lloyd Stewart, Regional Supervisor, Houston  
Mr. Howard Baker, Regional Supervisor, Beaumont  
Mr. Bob Lutzman, Regional Supervisor, Harlingen  
Mr. Tom Palmer, P.E., Regional Supervisor, Corpus Christi

## DEPARTMENT OF THE ARMY

MOBILE DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 2288  
MOBILE, ALABAMA 36628

Nester/ew/205-  
690-2724



REPLY TO  
ATTENTION OF:

SAMPD-EE

4 December 1979

- 20-1 In the third paragraph of the Cultural Resource Stipulation, which deals with further investigation of cultural resource indicators, the wording "qualified marine survey archeologist or underwater archeologist" implies that a distinction is recognized in the capabilities of the two. Regardless of the wording of the stipulation, such a distinction is recognized and, in requiring further investigation, only archeologists qualified for the type of further investigation being conducted will be considered acceptable.
- 20-2 Although the need for a revised cultural resources NTL has been recognized for several years by many State and Federal agencies, and meetings have been held for this purpose, the U.S. Geological Survey, in their comments on the Draft EIS for Sale 62, has stated that only GS can issue NTL's and that they are not at this time considering a revision to the NTL. Therefore, all references to a draft NTL in the EIS should be deleted and Appendix C has been revised to include only what BLM intends to use as standards for an adequate archeological assessment as required under Survey Report Format, Section 7, of the current NTL.
- 20-4 We appreciate and will consider the comments.
- 20-5 The Pemex blowout will be fully addressed in an upcoming Regional Resource Document. Other oil spill information is obtained from the USGS and the Coast Guard.
- 20-6 Thank you for your comments.
- 20-7 The tracts cited are not "near" the Flower Garden Banks even by EPA's and NOAA's definition; i.e., they are not within the proposed sanctuary boundaries and would not be included in any tract deletion option based on proximity to the Banks.
- 20-8 Our analysis estimates that the maximum new resident employment/population (which can be used as an indication of OCS sale induced demand for local public services) will be very small compared to the base population and will be distributed over 5 impact areas consisting of 9 counties (see table 10, p. 83 DEIS). No attempt has been made to predict or assume from this OCS related population/demand will be distributed among the numerous local jurisdictions within each of the indicated impact areas. Nevertheless our analysis assumes that some local jurisdictions may be faced with significant increased demands for public services (particularly if the potential cumulative effect of past and other proposed and future OCS oil and gas activity is considered). In this regard our assessment assumes that any potential adverse impacts resulting from the increased demands for public services and facilities will be substantially mitigated or entirely avoided through timely participation in the Coastal Energy Impact Program (CEIP). Our statement that "local public revenue generated by OCS activity is expected to equal or exceed the additional net requirement for government services" is thus based on the assumption that local jurisdictions will use CEIP assistance to cover most of the costs of planning for and development of new and improved public services and facilities which may be required as a result of OCS oil and gas activity (i.e., CEIP assistance plus local OCS development generated revenue is assumed to equal or exceed the cost of providing for OCS induced public service and facilities demands).
- 20-9 Your comments are noted.
- 20-10 Thank you for your comments.
- 20-11 Thank you for your comments.
- 20-12 Thank you for your comments.
- 20-13 Thank you for your comments.
- 20-14 Thank you for your comments.
- 20-15 Thank you for your comments.

Manager  
Bureau of Land Management  
New Orleans Outer Continental Shelf Office  
Hale Boggs Federal Building  
500 Camp Street, Suite 841  
New Orleans, LA 70130

DEPT. OF THE ARMY  
CORPS OF ENGINEERS  
MOBILE DISTRICT  
P. O. BOX 2288  
MOBILE, ALABAMA 36628  
4 DEC 1979  
Nester/ew/205-690-2724

Dear Sirs:

The following are comments on U.S. Dept. of The Interior Draft Environmental Impact Statement (DEIS) on proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales, Gulf of Mexico.

Lease offerings under consideration in the geographic area known as the Destin Dome, specifically Tracts A62-185 through A62-221, are presently under intense biological scrutiny. According to your DEIS description of the Destin Dome area, the tracts are estimated to be oil prone and contain about 39 percent of the oil reserves of this proposed site. Also, your DEIS states that this area "quite likely" contains live bottom areas. Personal observation of this particular area by Mr. R. D. Nester of our office along with Dr. R. L. Shipp and T. S. Hopkins (1978), indicates that this area definitely is in a "live bottom area." This area will receive a great deal of research effort during the calendar year 1980 and, very likely, the following few years. The University of South Alabama and the Dauphin Island Sea Lab will be conducting underwater observational studies utilizing the Johnson Sea-Link submersible from the Harbor Branch Foundation located in Fort Pierce, Florida. Although this geographic area has not been studied enough to warrant its consideration as a marine sanctuary, it should be understood that this area is biologically significant and should receive the maximum effort with regards to Biological Resource Protection for live bottom areas.

Video film documentation exists for this portion of the Destin Dome area and is presently on file at the Dauphin Island Sea Lab at Dauphin Island, Alabama.

SAMPD-EE  
Manager, Bureau of Land Management

4 December 1979

Further biological data for this area can be obtained from the Masters Thesis completed by R. D. Nester in 1978 which concerns the distribution of fishes in this region of the Gulf and, at this point, is the most up-to-date data regarding fishes from this region of the Gulf of Mexico.

If we can be of further assistance to your office regarding analysis of the potential environmental impacts of offshore oil development in this geographic area please contact:

Mr. R. Douglas Nester  
U.S. Army Corps of Engineers District, Mobile  
SAMPD-EE  
P.O. Box 2288  
Mobile, AL 36628

Sincerely yours,

*Willis E. Ruland*

WILLIS E. RULAND  
Chief  
Environmental Resources Branch

21-1 The Destin Dome tracts have been deleted.

## Southwest Louisiana Clearinghouse Review Board

P. O. BOX 3164 • LAKE CHARLES, LOUISIANA 70602  
PHONE (318) 433-1771

December 6, 1979

New Orleans OCS Office  
U. S. Department of the Interior  
Bureau of Land Management  
500 Camp Street, Suite 841  
New Orleans, LA 70130

Gentlemen:

22-1

The Proposed 1980 OCS Oil and Gas Sale A-62 and 62 has been reviewed, and has been found to be consistent with current policies, regulations, and legislation developed or in the process of being developed relative to our district.

If we can assist you in any other way, please contact our office.

Sincerely yours,

*Mike Ginn*

Mike Ginn  
Environmental Planner

MG/ddd

xc: George Gullett

22-1 Thank you for your comments.

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IMPERIAL CALCASIEU REGIONAL PLANNING AND DEVELOPMENT COMMISSION  
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DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD

TELEPHONE (G-WEP-7/12TP)  
XXXX 20593  
(202) 426-3300

16478.3a

Mr. John L. Rankin  
Manager, New Orleans OCS Office  
Department of the Interior  
Hale Boggs Federal Building  
500 Camp Street, Suite 841  
New Orleans, LA 70130

Dear Mr. Rankin:

The Department of Transportation (DOT) has reviewed the Draft Environmental Impact Statement (DEIS) on Outer Continental Shelf (OCS) lease sales A62 and 62 in the Gulf of Mexico. The following DOT comments are provided concerning this DEIS.

Port Access Route Study

The system of fairways and fairway anchorages already in existence in the Gulf of Mexico have proven to be an effective network of safe navigation routes through the offshore structures for 10 years. Under the authority of the Port and Tanker Safety Act (P.L. 95-474) the Coast Guard is authorized to conduct a Port Access Route Study (PARS) in ports subject to United States jurisdiction. As a result of PARS possible realignments and safety refinements such as traffic separation schemes within certain fairways may be recommended. It may be necessary to establish additional fairways or modify existing fairways should the Texas or Galveston Deepwater Ports come to pass. All new routing systems must ultimately be approved by the Intergovernmental Maritime Consultative Organization (IMCO). The Coast Guard will keep Bureau of Land Management informed of developments in the pending Port Access Route Study.

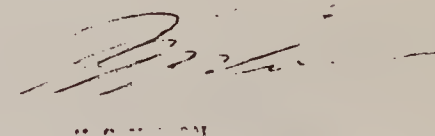
Safety on the Outer Continental Shelf

The explanation of Coast Guard responsibilities in paragraph 2(b), page 6, is incomplete. Offshore structures and artificial islands are regulated with respect to safety equipment and other matters relating to the safety of life and property. Under existing regulation, the Coast Guard investigates and files reports of casualties on vessels and fixed structures on the OCS.

Vessel safety includes inspection and certification of certain United States flag commercial vessels involved in OCS exploration, development and production. These include mobile vessels and other construction vessels such as pipelaying and derrick barges.

The Department of Transportation appreciates the opportunity to review the DEIS and looks forward to reviewing similar documents in the future.

Sincerely,



23-1 Thank you for your comments.

55

It's a law you  
can live with

## United States Department of the Interior

BUREAU OF MINES  
1001 L STREET, N.W.  
WASHINGTON, D.C. 20001

November 16, 1979

## Memorandum

To: Director, Bureau of Land Management (542)

Through: Assistant Secretary--Energy and Minerals

From: Director, Bureau of Mines

Subject: Draft environmental statement for Proposed 1980 Outer Continental Shelf Oil and Gas Lease Sales A62 and 62

The draft environmental statement, prepared under the new Council on Environmental Quality guidelines, is reasonably complete and succinct. However, although oil and gas leasing is not likely to adversely impact other off-shore mining, it should be noted that salt domes are possible sources of salt and sulfur as well as oil and gas. Because the proposed lease tracts are scattered among existing and expired lease tracts, the sales should not significantly change existing conditions in the Gulf of Mexico.

We believe that the final environmental statement should provide a more prominent discussion of Destin Dome use conflicts. If 39 percent of the estimated potential for oil and gas in the proposed sales is likely to be found in the Destin Dome tracts (as stated on pp. 35 and 80), and if these tracts cannot be leased until some sort of multiple use agreement is made between the Department of Defense and the Department of the Interior, and if there is no immediate prospect of such an agreement, then analyzing the proposed lease sales in terms of 27.1 million potential barrels of oil and 735 billion potential cubic feet of gas is misleading. In addition, if special protection requirements are to be stipulated for exploration drilling in the Destin Dome tracts (as stated on p. 20), some additional analysis of how this might affect potential production from the proposed lease sales should be provided.

Thank you for the opportunity to review this draft environmental statement.

*J. A. Lemie*  
Acting Assistant Director

24-1 The Destin Dome tracts have been deleted.

## United States Department of the Interior

GEOLOGICAL SURVEY  
RESTON, VA 22092

OFFICE OF THE DIRECTOR

In Reply Refer To:  
EGS-Mail Stop 760

15 NOV 1979

NEW ORLEANS OCS	
FILE COPY	INITIAL
ROUTE	
MGR.	
ASST MGR.	
15 NOV 1979	
LEGAL	
PRG	
EXP	
GR	
ADMIN	
ASST SER.	

## Memorandum

To: Outer Continental Shelf Office, Bureau of Land Management  
New Orleans, Louisiana

Through: Assistant Secretary--Energy and Minerals

From: Director, Geological Survey

Subject: Review of draft environmental statement for proposed OCS oil and gas lease sales A62 and 62, Gulf of Mexico

The deletion of the Destin tracts from the proposed sale will require numerous revisions in the environmental statement. We will provide data to help accomplish the revisions.

References to specific tracts having potential geologic hazards should be deleted pending completion of our hazards study.

It should be indicated whether pipeline burial operations are in compliance with the Executive Order on protection of wetlands.

It is not true, as indicated in the draft statement, that natural gas production in the Gulf of Mexico has been declining.

These concerns and our other comments are discussed in the enclosure.

Linn Hoover

H. William Menard

Enclosure



ONE HUNDRED YEARS OF EARTH SCIENCE IN THE PUBLIC SERVICE

## GENERAL COMMENTS

A matrix analysis, such as included in previous statements, would facilitate determining the relative risk to the environment that could be posed by the various tracts.

## SPECIFIC COMMENTS

Page i, paragraph 3. The proposed sales included 295 tracts, totaling 1,512,787.37 acres. A total of 221 tracts, comprising 1,094,057.37 acres, were selected for Sale No. A62 (Federal Register April 30, 1979). West Cameron area, South Addition Block 648, which appears in appendix A as tract A62-122, was added to Sale No. 58A, not Sale No. A62. The 37 tracts in the Destin Dome area (tract Nos. A62-185 through A62-221) were deleted on October 12, 1979.

Page ii, line 3. As a result of the deletion of the Destin Dome tracts from Sale No. A62, 68.4 percent of the tracts are gas prone, 3.3 percent oil prone, and 28.3 percent oil and gas prone.

Page iii, figure 1. The 37 Destin Dome tracts should be removed.

Page iv, paragraph 2. The entire sale area originally consisted of 295 tracts (presently 253 tracts).

Page v, paragraph 3. As a result of the deletion of the Destin Dome tracts, no pipeline with associated onshore terminal/storage facilities will be required in the vicinity of Navarre, Florida.

Page v, paragraph 5. These tracts have been deleted from proposed Sale No. A62.

Page vi, paragraph 4, Alternative B. Two of the six deletion modifications are no longer viable options. The Texaco v. Andrus litigation has been settled. As a result, it will not be necessary to delete any tracts, although three of the tracts will be reduced in size. The 37 tracts in the Destin Dome area have been deleted from this proposal. We strongly object to the inclusion of an option to delete six tracts due to geologic and engineering hazards. The Geological Survey (GS) has the responsibility for making tract-specific hazards determinations and recommendations for deletions and stipulations. Identifying specific tracts in the draft environmental statement for deletion prior to a hazards determination by GS is misleading. The Environmental Protection Agency (EPA) has only questioned the adequacy of deepwater technology and regulations for water depths greater than 300 m. Platform Cognac is presently operating in the Gulf of Mexico in water depths of 312 m. This option should include only those tracts with water depths exceeding 300 m.

Page 6, paragraph 1. GS regulations for oil, gas, and sulfur operations were published in the Federal Register on September 14, 1979, and October 26, 1979, to become effective on December 13, 1979.

Pages 6 and 7, Authorities of Other Federal Agencies. The generalized discussion of the responsibilities of the various Agencies would be improved if references were provided here indicating where further information relating to the specific authorities, responsibilities, and procedures is contained in the draft impact statement. This section should also note the coordination activities among Agencies within the Department of the Interior in compliance with S.O. 2974.

Pages 7 and 8, C.1. Coastal Zone Management. The status of the coastal zone management plans prepared by the States affected by the proposed lease sale(s) should be reflected in this discussion. Alabama has an approved coastal zone plan which requires that OCS activities be conducted in a manner consistent with this plan. Louisiana may receive approval for its coastal zone plan prior to the proposed lease sale(s). These developments may suggest reconsideration or updating of the final sentence of this section.

Page 11, E.1. See comments on page i, paragraph 3.

Page 11, E.2. See comments on page v, paragraph 3. GS will provide new pipeline estimates.

Page 12, table 1. In the column headings, 95 percent should be associated with the low estimates and 5 percent with the high estimates. The high estimate for peak daily oil production is 20,500 barrels. The GS estimated no terminals or storage facilities would be required for the low development scenario and one for the mean scenario. The GS did not provide the cost estimates for subsea completions. This should be noted on the table. GS will provide revised resource and infrastructure estimates on the basis of the 258 tracts currently included in the proposal.

Page 13, table 2. The figure 95 percent should be associated with the low and 5 percent with the high development scenarios. Year 1982 should be 1981, 1983 should be 1982 . . . 1990 should be 1989. The number of delineation wells for the high case in the years labeled "1985" and "1986" in the table should be 45 and 43, respectively. It should be noted in the footnotes that GS did not supply the figures for subsea completions and terminals/support. GS will provide revised development timetable estimates on the basis of the 258 tracts currently included in the proposed sales.

Page 14, paragraph 5. "Gulf of Mexico Operations" should be "Gulf of Mexico Region."

Page 15, item 4. The 37 tracts in the Destin Dome area have been deleted from Sale No. A62.

78 Page 20, item 5. See comment on page 15, item 4.

Page 24, paragraph 2. GS issues NTL's and is not, at this time, considering a draft proposed revision. Delete sentences 2 through 5 and appendix C.

Page 24, paragraph 4. Implementation of the lease stipulation recommended by BLM is at the discretion of the Supervisor. There are no alternatives to the standard cultural resource lease stipulation. Delete appendix D and the reference to it in this paragraph.

Page 24, paragraph 5. There is no section IV.A.7. Delete the last sentence.

Page 27, 1.E.5.d. The third sentence states "In this regard the New Orleans OCS Office is stepping up its efforts to prevent pipeline breaks caused by anchor dragging . . . ." If this type of statement is to be made, it should be complete, not only as to what is being done by BLM, but also as to what is being done by the GS, and combining these efforts by stating "the DOI is doing the following."

Our recommendation for rewording the last part of this paragraph is: "In this regard, the Interior Department is involved in OCS pipeline mapping programs to help minimize pipeline damage due to anchor dragging by having accurate maps available to the industry and the public. Efforts are underway to develop an oil spill analysis model for the Gulf of Mexico."

Page 27, 1.E.5.d., Pipeline and Platform Mapping. The statement in the fifth sentence, "The New Orleans OCS Office . . . has prepared maps . . . detailing all major pipelines in the Gulf of Mexico which are used in the pipeline permitting process," is misleading. While the BLM maps do contain most of the major pipelines, they lack over 2,000 pipeline segments that comprise more than 2,000 miles of OCS pipeline. However, the GS has maps, not mentioned in the environmental statement, which delineate all OCS pipelines in the Gulf of Mexico area. GS maps are on an expanded scale of 1 inch = 2,000 feet (1 inch = 1,000 feet in highly congested areas) to provide the necessary detail for safe placement of anchors.

We recommend insertion of the following sentences after the one discussed above: "The Gulf of Mexico Regional Office of GS maintains maps at a scale of 1 inch = 2,000 feet (1 inch = 1,000 feet in congested areas) which delineate all OCS pipelines. These maps plot the location of almost 11,000 miles of pipelines in the Federal sector of the Gulf of Mexico, plus an additional 1,100 miles of pipelines that transport OCS production through State waters."

Page 31, paragraph 3. The quoted production figures are mean estimates of peak production. GS will provide revised estimates on the basis of the 258 tracts currently included in the proposed sales.

Page 31, item 2.a. The tracts involved with multiple use conflict have been deleted from Sale No. A62.

Page 33, f. Impact on Endangered Species. The referenced paragraph should be clarified to indicate that the biological opinions were regional in nature (entire Gulf of Mexico), but were limited to leasing and exploration activities. As the text is presently written, the reader receives the impression that all OCS activities are covered in the referenced biological opinions. Appendix E did not contain the complete biological opinions from the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS). The cover letter from NMFS was included, but not the text of the opinion.

Pages 34 and 35, Modification B-1. The Texaco v. Andrus litigation has been settled. As a result of this settlement, no tracts will be deleted from Sale No. A62, although three tracts will have their acreage reduced. This is no longer a valid deletion option. The resource estimates quoted were not provided by GS. The sources of these estimates should be noted.

Page 37, Modification B-3. Seven of the tracts are considered gas prone and three are considered both oil and gas prone. The resource estimates quoted were not provided by GS. Resource estimates for this deletion option will be provided by GS for inclusion in the final environmental statement.

Pages 38, 39, and 41, Modification B-4. See comments on page vi, paragraph 4. Any identification of, or reference to, specific tracts having potential geologic hazards should be deleted from the draft statement. GS did not provide the quoted resource estimates. If, after completion of the hazards study, any tracts are recommended for deletion, GS will furnish resource and infrastructure estimates for this deletion option.

Pages 41 and 42, Modification B-5. See comments on page vi, paragraph 4. The following 18 tracts in the proposed sales have water depths exceeding 300 m:

Corpus Christi--Tracts 62-72 through 62-74  
Viosca Knoll--Tracts A62-162 through A62-165  
Green Canyon--Tracts A62-174 through A62-184

The above 18 tracts should comprise the deletion option. GS did not provide the resource estimates which are quoted for this option. GS will provide resource estimates, however, for the 18 tracts with water depths exceeding 300 m. The Texaco Canada Resources Ltd. wildcat off Newfoundland was plugged in August 1979, after reaching a total depth of 20,023 feet in 4,875 feet of water (Oil and Gas Journal) September 3, 1979).

Pages 42 and 43, Modification B-6. GS did not provide the resource estimates quoted for this deletion option, but will furnish estimates for inclusion in the final environmental statement.

Pages 45 through 47, Alternative B. See comments concerning pages 34 through 43. Alternatives A, C, and D originally included 295 tracts (see comments on page 1, paragraph 3).

Page 55, paragraph 5. The 37 tracts in the Destin Dome area have been removed from Sale No. A62. Delete this paragraph.

Pages 58 through 63. As a result of the deletion of the Destin Dome tracts, references to the Florida "Panhandle" Gulf coast area should be omitted from this discussion.

Page 59, c. A reference to the proposed coastal zone management plans and the effect of approved plans on land uses would be appropriate in this discussion.

Page 62, table 4. The source(s) of the data should be included on this table. From the description of the material included on the previous page, it is not clear as to which references were relied on for the tabulated information.

Page 63, paragraph 3, and page 64, table 5. The most recent publication date for "Outer Continental Shelf Statistics" is June 1979. Table 5 should be updated to include the period 1954-1978.

Page 70, IV.A.1.b. It should be clarified as to whether pipeline burial operations in coastal wetlands have been assessed for compliance with Executive Order 11990, Protection of Wetlands.

The approximate volume of sediment that is estimated to be disturbed by pipeline burial has been provided in nearly every previous OCS environmental statement; it would be useful here.

Page 70, IV.A.1.c. The approximate acreage to be occupied by offshore structures has generally been provided in previous OCS environmental statements; this information would be useful here.

Platforms are not allowed to be installed in shipping fairways. The last sentence in this section should be changed from "can be mitigated" to "is mitigated" to reflect this.

Page 71, line 4. Since table 6 has been updated by the TAS, we recommend that the updated table be used in the final environmental statement.

Page 71, IV.A.2.b. We have recently discovered that oil spill data for the Gulf of Mexico is incomplete. Although the statistics used include some information involving leaks and breaks in BLM approved pipelines, the data is not complete.

The transportation companies and carriers correspond with BLM rather than with GS. In some instances (usually large spills), we were aware of the incident and included statistical data in our reports, but we realize that data on many other incidents involving BLM approved pipelines is not in our records. We have formally requested that BLM report future incidents to us but, in the interim period, statistical analysis (in some instances to six significant figures) using this incomplete data should not be made.

Information just received from the local BLM office for the period 1975 to the present is incomplete with respect to spill volumes, and information covering BLM approved pipelines appears to be unavailable prior to that period. The environmental statement should state that the data will be incomplete until a further study is made.

Accordingly, part IV.A.b. should be rewritten in general terms as follows:

Paragraph 2. No change is needed in introductory sentences, but statistics should be rounded off as follows:

"The vast majority of oil spills are small (over 90 percent were less than 1 barrel)."

"Over . . . spills (less than 1 percent of the spills accounted for over 90 percent of the oil spilled)."

"Major . . . year)." No change.

The data source for table 7 referenced in the following paragraph should be annotated as above.

Paragraph 3. Volumes expressed should be rounded off to the nearest 1,000 barrels. (The accuracy implied by using six significant figures is unfounded).

Page 71, IV.A.2.b.(1). Paragraph 2 should be rewritten as follows:

"Since 1970, over 70 percent of the total volumes of oil reported spilled from pipelines was the result of anchors associated with drilling rigs, derrick barges, pipelaying barges, and ships dragging across the pipelines and causing them to be dislocated, kinked, split, or ruptured. Other causes of pipeline damage include movement and/or shear due to wave action and unstable bottom conditions which, in some instances, resulted in mudslides; fouling of trawling gear on subsea valves and taps; and internal corrosion of the line due to formation water that is produced with oil."

Only a small percentage of anchor-related problems are due to ships anchors, as opposed to problems involving anchoring systems associated with oil and gas operations. The effect of an anchor hang is as stated above. Wave action usually causes an unstable bottom to fail, and the most catastrophic resultant failure, a mudslide, should therefore be mentioned. We are unaware of a single documented instance in the Gulf of Mexico of damage caused to a pipeline by the boards used to hold trawling gear open. We note frequent incidents involving trawling gear (nets, ropes, tickler chains, etc.) getting hung on pipeline-related obstructions, such as taps and valves.

Page 71, IV.A.1.b.(1), paragraph 4. This paragraph should be rewritten as follows: "Starting in 1969 . . . spills. The most important action was the promulgation of new requirements for pipeline-related platform safety equipment which monitor operating pressures, sense decreases in line pressure, and automatically shut in input sources, thereby minimizing oil spills."

The next three sentences can remain intact, but the last sentence should be changed as follows: "Burial of pipelines, as stated above, has minimized pipeline damage due to anchor dragging involving small anchors; however, the 20,000- to 30,000-pound anchors associated with semisubmersible drilling rigs, derrick barges, and pipelaying barges are believed to penetrate over 20 feet into bottom sediments in some areas and, therefore, it is the administrative procedures associated with the permitting process which make operators aware of the location of pipelines in the area of operations that should prove to be the most effective means of minimizing anchor damage."

Page 71, IV.A.1.b.(1), paragraph 5. This paragraph should be deleted. Almost every subject discussed in this paragraph is technically inaccurate. Application of an impermeable coating and wrap to pipelines is to prevent external corrosion. Concrete coating is applied to large diameter pipelines to increase the specific gravity of these lines so that they will maintain a negative buoyancy and not have a tendency to float or move due to wave action. The Office of Pipeline Safety regulations do not require protective devices associated with pressure monitoring systems. As discussed in paragraph 4, these are DOI requirements which originated in 1970. Likewise, the requirements for regulator inspection of the pipeline route by the operator is a DOI requirement.

Page 74, first complete paragraph. This paragraph should state "under development and now being field tested" rather than "used" to accurately reflect the status of these features.

Page 74, second complete paragraph. This paragraph should be eliminated entirely as reduction in oil spillage from pipeline accidents is primarily due to requirements other than burial. Further, the high spillage-rate statistics prior to 1970 are largely the result of one incident which involved a spill of approximately 160,000 barrels due to an anchor drag, and the pipeline involved in this incident was buried 3 feet at the time of installation. This not only nullifies the conclusions of this paragraph, but supports our changes to the last part of paragraph 4 of this section.

Page 75, paragraph 4. Delete ". . . described in Modification B-4 in section 11.B.4. . . ." Identification of specific tracts for potential deletion due to geologic hazards cannot be accomplished prior to completion of a GS hazards study.

Page 75, paragraph 5. It appears that "unconsolidated" should be changed to "underconsolidated" to agree with the statement on page 38, line 13.

Page 75, paragraph 7, lines 1 and 2. Change "fault plains" to "fault planes" in two places.

Page 80, a. The 37 Destin Dome tracts have been deleted from Sale No. A62. Omit this discussion.

Pages 80 through 86. Delete references to Florida areas, including a terminal/storage facility in the vicinity of Navarre, Florida.

Page 86, paragraph 2, line 2. Please verify the units provided for the table of uncontrolled emissions in the Gulf of Mexico.

Page 86, paragraph 3, line 1. Although oil and condensate production from offshore State and Federal leases in the Gulf of Mexico has been declining, this is not true for natural gas production, according to data published in "Outer Continental Shelf Statistics, June 1979."

Page 90, paragraph 1. Delete this paragraph on Destin Dome.

Pages 90 and 91, g. All references to the Florida "Panhandle" area should be omitted. The original proposal included 295 tracts (see comments on p. 8, par. 3). As a result of the deletion of 37 Destin Dome tracts, GS will provide revised estimates of oil and gas resources and miles of pipelines for use in the final environmental statement.

Page 92, paragraph 5. Delete this paragraph on Destin Dome tracts.

Pages 93 through 99. See comments for pages 34 through 43. In addition, the estimates for the number of wells and platforms and miles of pipeline were not provided by GS. The source of these estimates should be noted.

Page 98, f. Tract No. A62-144 was omitted from the list. Tract Nos. "62-15 through 27" should be "62-25 through 27."

Pages 100 through 105. As a result of the deletion of the 37 tracts from the Destin Dome area, GS will provide revised resource estimates for the proposal.

Page 104, paragraph 2. It is stated that "Conservation is definitely the environmentally preferred alternative to canceling the sale." In that statement the phrase "to canceling the sale" should be changed to read "should the sale be canceled."

Pages 129, 132, and 133, appendix A. The acreage included in tract Nos. A62-71, 74, and 75 has been reduced as a result of the settlement of the Texaco v. Andrus litigation. Destin Dome NH 16-8 tract Nos. A62-185 through 221 have been deleted from the sale. West Cameron area, South Addition Block 648 (tract No. A62-222), was never included in the sale.

Page 142, appendix B, 3. The tracts in the military warning areas have been deleted.

Page 144, appendix B, 11. Delete references to Florida "Panhandle," including onshore terminal/storage facilities.

Appendix C. See comments on page 24, paragraph 2. This is proposed only by BLM, not GS.

Visual No. 1 and overlay. West Cameron Block 648 (tract No. A62-122) was not part of this proposal and should be deleted from these visuals.

Visual No. 2. The blue color is missing from the explanation for map unit Qbl (bays, lakes and coastal deposits). The pink color is missing from the explanation for map unit Qsi (marshes, swamps and barrier islands). Mississippi fan sediments (map unit Qmc) are largely on the slope, but are shown under the heading "shelf" in the explanation.

Visual No. 3. A proposed stipulation is included in this proposal to protect Diaphus Bank. This bank should be identified on Visual No. 3.

Visual Nos. 1E through 12E and overlay. As a result of the deletion of the Destin Dome tracts, these visuals are no longer necessary.

25-1 These comments are addressed in the enclosure. Due to the length of these comments, they have responses corresponding to the pages identified by the reviewing agency.

General Comments. In line with the new CEQ Regulations it was determined by this office that a tabular comparison was required of those specific impacts identified in the EIS. In lieu of a overall matrix as was done in the past, Table 3 was compiled. Further, Appendix B is a summary assessment of all impacts considered in the determination of specific impacts.

p. i, para. 3  
Specific Comments

Although 221 tracts were published in the Federal Register it was a Department decision to add a Cameron Area, South Addition, Block 648 to Sale A62. It was added as Tract A62-222. This was correctly reflected in the tract list in the DEIS. Subsequent decision later deleted the tract from Sale A62 and it was added to Sale 58A. The public was notified of this change in a Correction Notice to the DEIS dated October 8, 1979.

p. ii, line 3

This change is indicated under the Section titled Brief Description of Action.

p. iii, Fig. 1

Your comment has been noted. The public was advised of the Destin Dome tracts in the above referenced Correction Notice.

p. iv, para. 2

Originally there were 222 tracts in Sale A62 and 74 in Sale 62, for a total of 296. There are presently 272 tracts, in proposed Sales 62 and A62. Thirteen tracts were added, after publication of the DEIS and 38 deleted.

p. v, para. 3

This is correct since no leasing action will occur in the Destin Dome area.

p. v, para. 5

This was indicated in our DEIS Correction Notice of October 8, 1979.

p. vi, para. 4

It is correct that 2 of the 6 modifications are no longer viable options.

The existence of possibly hazardous tracts was discussed with the U.S.G.S. prior to writing the DEIS.

As indicated in the DEIS, the USGS hazards studies being conducted at that time were not scheduled for completion until after publication of the DEIS. However, GS had indicated to us that their preliminary studies analysis indicated that the six tracts we then identified in Modification B-4 appeared to be potentially hazardous sites. For this reason they were included as an option for decision. Tracts have been deleted from past sales because of potentially hazardous conditions. Should final studies analysis determine any of these tracts to be nonhazardous, this option will be revised.

p. 6, para. 1

p. 6 & 7

pp. 7 & 8, c. 1

p. 11, E. 1

p. 11, E. 2

p. 12, Table 1

Deletion of tracts with geologic hazards, whether control are stipulated or not, remains a viable decision option. It removes all uncertainty about the environmental consequences of non specific controls and their effectiveness. The agency preparing the EIS has an equal responsibility to set forth options with clear environmental consequences that are improved over that in the proposed action.

The BLM was contacted on October 26, 1979 regarding the 300 m depth. BLM agreed during that telephone contact that the Green Canyon tracts A62-168 through A62-173 would be removed from Modification B-5.

The two additional Federal Register notices were published while the DEIS was being printed. The effective date was changed to December 13, 1979, during that period. Most recently the Federal Register of November 30, 1979 again extended the orders to January 1, 1980.

Your comments have been noted.

Alabama's CZM Program was approved September 25, 1979, while the DEIS was in print. Louisiana's DEIS was published in September 1979 also. The generalization in these plans remain as stated.

See also our response to that comment.

Your total pipeline mileage re-estimate has been received. We have removed the Navarre, Florida area from our basic assumptions, while retaining the other two sites.

The heading percentage is being changed to conditional probability. Table 1, Subsea completions information as listed under the Costs Section, is in error. This information was inadvertently listed under both "Costs" and under "Development". It should only be under Development.

While it is true that GS estimated no terminals or storage facilities for the low scenario, one for the mean, and three for the high, they also provided dollar figures for all three scenarios. The BLM contacted the USGS by telephone regarding this discrepancy and was advised of the changes which were then indicated in Table 1, to correlate with the cost figures.

	<p>A later contact indicated subsea completions are included in the "Platform" costs. Table 1 has been changed to reflect the information.</p> <p>We have incorporated into the FEIS discrete resource estimates for those individual alternative/modifications which have now been received. This information was not received until after the DEIS was made available to the public.</p> <p>We hope timely delivery will be possible to allow us for all future estimates to compare alternatives in accordance with CEQ Regulations.</p>	<p>p. 24, para. 4</p> <p>p. 24, para. 5</p> <p>p. 27, 1E5d</p>	<p>Any stipulation has possible alternatives. Any of the alternatives is a distinct possibility for future use. These have been included in an appendix for comment, and so far, HCRS in Washington and the State of Florida have offered comments which will be useful in evaluating these alternatives.</p> <p>The last sentence is deleted.</p> <p>Regarding the comment on Pipeline and Platform mapping, we must disagree that the EIS statements are misleading. We are particularly concerned that pipeline detail on some pipeline locations and connections supplied us recently on GS maps are simply incorrect when compared with site specific detail provided by the pipeline company. This a matter requiring further coordination. However, we feel that the DEIS is an inappropriate forum to discuss interbureau technical mapping differences and pipeline procedural matters. Review comments should specifically address salient points of significant correction to the EIS needed to improve the decision-making character of the document.</p>
p. 13, Table 2	<p>Yearly figures will be changed as indicated. Since we did not receive a breakdown by year of either the subsea completions and terminals/support, the basic numbers were assumed by us in the DEIS. This shall be so noted in the FEIS on Table 2.</p> <p>We incorporated into the FEIS those revised development timetable estimates received for discrete alternative modifications. This information was not received until after DEIS publication.</p>	<p>p. 31, para. 3</p> <p>p. 31, Item 2a</p>	<p>Comments noted.</p> <p>See our previous responses to this same comment.</p>
p. 14, para. 5	Comments noted.	p. 33, f	Section II.A.2.f. Impact on endangered species clearly states . . . "no jeopardy to endangered species or their habitat as a result of this proposal." The full text from the National Marine Fisheries Service containing their biological opinion has been added.
p. 15, item 4	See our previous response to this same comment.		
p. 20, Item 5	See our previous responses to this same comment.	p. 34 & 35	Your comments are noted. The resource estimates quoted for all modifications were extrapolated from the total figures supplied by the USGS because discrete information was not received prior to the DEIS. We have since received this information on Alternative "B" and have used it in the FEIS. Discrete resource information will be requested for all future impact statements so that we may comply with existing CEQ Regulations.
p. 24, para. 2 (Appendix C)	<p>Since GS has stated that BLM's proposed archeological report standards constitute a formal revision to the NTL, and that no such revision is currently being considered by them, we are revising the standards to include an adequate archeological assessment as required by the current NTL 75-3 under Survey Report Format Section 7. BLM is responsible for review of the archeological survey reports and is the agency responsible for supplying cultural resource expertise for the OCS program. Appendix C has been revised accordingly. References in the text to a draft NTL have been deleted.</p>	<p>p. 37, Mod. B-3</p> <p>pp. 38, 39, 41</p> <p>pp. 41 &amp; 42, Mod. B-5</p>	<p>See comment above.</p> <p>We do not believe the identification or reference of specific tracts with geological hazard potential should be deleted. Such deletion options are valid alternatives for examination in our EIS.</p> <p>As stated above, agreement to delete tracts less than 300 m was reached with your agency on October 26, 1979. See our response to your previous comments about both this matter and our resource estimates.</p>

pp. 42 & 43, Mod. B-6	Noted.
p. 45-47 "B"	See all our responses to any reference relative to 295 total tracts.
p. 55, para 5	Destin Dome area tract deletions. The public was informed of the Correction to the DEIS on October 8, 1979.
pp. 58-63	The deletions have been recognized in the FES.
p. 59, c	Your comment is noted. Refer to Section I. C. 1, p. 7 DEIS, "Coastal Zone Management."
p. 62, Table 4	1978 Statistical Abstracts for the states of Alabama, Florida and Mississippi; 1977 Statistical Abstract for Louisiana; 1978 Texas Fact Book for the state of Texas.
p. 63, Table 5	At the time of printing, 1978 was the most recent publication. We have since received the 1979 publication from your office and Table 5 has been updated.
p. 70, 1VA1b	The Army Corps of Engineers is responsible for assessing and permitting pipeline burial operations in coastal wetlands. In performing such assessments, whether under a general permit for specified operations or under a specific permit, the Corps complies with all orders, rules, regulations, and legislation, including Executive Order 11990.
p. 70, 1VA1c	Your comments are noted. The last sentence dealing with conflicts should read "are mitigated . . .".
p. 71, line 4	The information indicated on this Table was the most recent available. The table will be updated for the next Gulf of Mexico oil and gas sale.
p. 71, IV A2b	The oil spill data in Table 6 was obtained from USGS Circular 741, 1976. As stated above, this was the most recent publication at the time of printing.  As was indicated in the statement, our statistical analysis of oil spill data is believed to be representative of the general character of oil spills.
p. 71, IV A2b (1)	This information is appreciated and will be incorporated into the next proposed GOM oil and gas sale.
p. 71, IV A1b (1) para. 4	This information is appreciated and will be incorporated into the next proposed GOM oil and gas sale.

p. 71, IV A1b (1) para. 5

The paragraph (IVA.2.b(1)) will be deleted.

p. 74 1st para.

Continuous metering systems, automatic high pressure shut-downs, and remotely controlled mainline block valves are some of the industry developed features being tested in the field for reducing the magnitude of production related oil spills.

p. 74 2nd para.

The paragraph will be deleted.

p. 75 para. 4

See our comment to p. vi, para. 4.

p. 75 para. 5

Your comment noted.

p. 75 para. 7

Your comment noted.

p. 80, a

See our previous comments relative to the Destin Dome tracts.

p. 80 through 86.

See our previous comments relative to the Destin Dome tracts.

p. 86, para. 2, line 2

EPA-450/3-77-026, p. 129, June 1977. "Atmospheric Emissions from offshore Oil and Gas Development and Production."

p. 86, para. 3, line 1

Your comment is correct. This statistical information was unavailable at the time DEIS was written.

p. 90, para. 1

See our previous comments relative to the Destin Dome tracts.

p. 90 and 91, g.

See our previous comments relative to the Destin Dome tracts. Your revisions have been received.

p. 92, para. 5

See our previous comments relative to the Destin Dome tracts.

p. 93 through 99

See our comments for p. 34 through 43. As indicated previously, the estimates used were BLM extrapolations of your overall estimates since we had not yet received your discrete modification estimates.

p. 98, f

Your comments are noted.

p. 100 through 105

The revision have been received.

p. 104, para. 2

Your comments are noted.

p. 129, 132, 133 and Ap. A

See our previous comments to each of these subjects. As states previously, tract A62-222 was included in the sale.

p. 142, Ap. B, 3	See our previous comments relative to the Destin Dome tracts.
p. 144, Ap. B, 11	See our previous comments relative to the Destin Dome tracts.
Ap. C	See our comments to p. 24, para. 2.
Visual No. 1	This tract was officially a part of this proposal.
Visual No. 2	Your comments are noted.
Visual No. 3	Your comments are noted. The bank is located on this visual; however, the visuals were printed prior to the DEIS and at that time the bank was unnamed.
Visuals 1E through 12E and overlay	Your comments are noted.



## Section VIII

### Appendices

VIII



**APPENDIX A**

**TENTATIVE TRACT LIST**



## APPENDIX A.

PROPOSED TRACT LIST  
OCS SALE NO. A62

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
SABINE PASS AREA						
A62-1	12	All	G	5000	15	10
A62-2	14	All	G	5000	17	12
WEST CAMERON AREA						
A62-3	53	All	G	5000	7	10
A62-4	54	All	G	5000	9	10
A62-5	58	All	G	5000	9	10
A62-6	59	All	G	5000	10	10
A62-7	64	All	G	5000	10	10
A62-8	68	N $\frac{1}{2}$	G	2500	7	10
A62-9	79	All	G	5000	12	10
A62-10	90	All	G	5000	13	10
A62-11	91	All	G	5000	14	10
A62-12	97	All	G	5000	14	10
A62-13	166	All	G	5000	26	14
A62-14	167	All	G	5000	26	14
A62-15	203	All	G	5000	34	16
A62-16	211	All	G	5000	37	16
A62-17	240	All	G	5000	44	20
WEST CAMERON AREA, WEST ADDITION						
A62-18	157	All	G	2170.32	18	12
A62-19	289	All	G	5000	26	12
A62-20	290	All	G	5000	27	12
A62-21	291	All	G	5000	28	14
A62-22	293	All	G	5000	30	12
A62-23	298	All	G	5000	30	14
A62-24	299	All	G	5000	31	14
A62-25	300	All	G	5000	32	14
A62-26	315	All	G	5000	40	18
A62-27	317	All	G	5000	43	20
A62-28	363	All	G	5000	57	24
WEST CAMERON AREA, SOUTH ADDITION						
A62-29	489	All	G	5000	83	40
A62-30	490	All	G	5000	84	42
A62-31	518	All	G	5000	90	52
A62-32	519	All	G	5000	90	52
A62-33	523	All	G	5000	93	54

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
WEST CAMERON AREA, SOUTH ADDITION (continued)						
A62-34	547	All	G	5000	99	60
A62-35	548	All	G	5000	99	58
A62-36	553	All	G	5000	94	58
A62-37	646	All	G	5000	118	140
EAST CAMERON AREA						
A62-38	2	1/	G	2413.79 (est.)	3	8
A62-39	16	1/	O&G	2417.32 (est.)	3	8
A62-40	43	All	G	5000	12	14
A62-41	50	All	G	5000	15	16
A62-42	65	All	G	5000	23	16
A62-43	66	S½	G	2500	22	16
EAST CAMERON AREA, SOUTH ADDITION						
A62-44	348	All	G	5000	103	90
A62-45	349	All	G	5000	104	90
VERMILION AREA						
A62-46	77	All	G	5000	19	10
A62-47	78	All	G	5000	20	12
A62-48	89	All	G	5000	21	6
A62-49	91	All	G	5067.26	21	6
A62-50	221	All	G	5204.83	60	34
VERMILION AREA, SOUTH ADDITION						
A62-51	275	All	G	5000	74	54
A62-52	280	All	G	5000	75	54
A62-53	304	All	G	5000	83	60
A62-54	305	All	G	5000	83	60
A62-55	306	All	G	5000	82	62
A62-56	317	All	G	5000	83	62
A62-57	318	All	G	5000	85	62
A62-58	326	All	G	5000	96	64
A62-59	336	All	G	5000	86	68
A62-60	341	All	G	5000	92	68
A62-61	350	All	G	5000	94	72
A62-62	396	All	G	5000	99	126
SOUTH MARSH ISLAND AREA						
A62-63	24	All	O&G	5000	35	24
A62-64	34	All	G	5000	44	26
A62-65	62	All	G	5000	55	36
A62-66	64	All	G	2965.03	56	38

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
SOUTH MARSH ISLAND AREA, SOUTH ADDITION						
A62-67	100	All	O&G	5000	72	52
A62-68	122	All	O	5000	78	60
A62-69	160	All	O&G	5000	85	82
A62-70	198	All	G	3545.99	101	120
SOUTH MARSH ISLAND AREA, NORTH ADDITION						
A62-71	231	All	O&G	5000	14	4
A62-72	232	All	O&G	4818.68	14	4
A62-73	234	2/	O&G	1756.63	17	6
A62-74	236	All	O&G	5000	14	6
A62-75	242	All	O&G	5000	15	6
A62-76	247	All	O&G	4926.98	22	6
A62-77	274	All	O&G	5035.27	26	14
EUGENE ISLAND AREA						
A62-78	76	All	G	5000	19	6
A62-79	90	N½; SW¼	O	3750	23	8
A62-80	113A	All	O&G	5000	32	16
A62-81	116	W½	O&G	2500	28	12
A62-82	117	All	O&G	5000	26	12
A62-83	129A	All	G	3824.72	30	18
A62-84	133	All	O	5000	35	18
A62-85	142	All	G	5000	26	14
A62-86	143	All	G	5000	24	12
A62-87	146	All	G	5000	27	14
A62-88	147	All	G	5000	28	16
A62-89	148	All	G	5000	29	16
A62-90	159	All	O&G	5000	38	22
A62-91	160	All	O&G	5000	36	22
A62-92	181	All	O&G	5000	44	28
A62-93	182	All	O&G	5000	42	26
A62-94	226	All	G	5000	52	40
A62-95	240	All	G	5000	53	42
EUGENE ISLAND AREA, SOUTH ADDITION						
A62-96	396	All	O&G	5000	94	140
SHIP SHOAL AREA						
A62-97	12	All	G	5000	6	4
A62-98	13	3/	G	4357.81 (est.)	5	4
A62-99	14	4/	G	3237.49 (est.)	4	4
A62-100	50	All	O&G	5000	10	4
A62-101	67	1/	G	587.05 (est.)	3	8
A62-102	173	All	G	5000	24	8

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
SHIP SHOAL AREA, SOUTH ADDITION						
A62-103	319	All	G	5000	63	90
A62-104	332	All	G	5300.60	64	94
SOUTH TIMBALIER AREA						
A62-105	76	All	O&G	5000	20	18
A62-106	77	All	O&G	5000	20	18
A62-107	96	All	O&G	5000	23	18
A62-108	97	All	O&G	5000	22	18
A62-109	160	All	G	5000	33	40
A62-110	174	All	G	3772.18	36	38
A62-111	192	All	G	5000	38	40
A62-112	200	All	G	5000	42	40
A62-113	208	All	G	5000	43	58
A62-114	209	All	G	5000	44	62
SOUTH TIMBALIER AREA, SOUTH ADDITION						
A62-115	227	All	G	5000	46	62
A62-116	228	All	G	5000	47	64
A62-117	246	All	G	5000	51	56
A62-118	269	All	G	5000	54	66
A62-119	274	All	G	5000	56	76
A62-120	284	All	G	5000	57	106
A62-121	285	All	G	2148.46	58	112
A62-122	287	All	G	5000	60	130
SOUTH PELTO AREA						
A62-123	2	1/	O&G	3344.50 (est.)	3	8
A62-124	3	1/	O&G	4756.84 (est.)	4	10
A62-125	4	All	O&G	5000	5	10
A62-126	7	All	O&G	5000	8	12
GRAND ISLE AREA						
A62-127	34	All	O&G	5000	12	26
GRAND ISLE AREA, SOUTH ADDITION						
A62-128	91	All	G	5000	37	78
A62-129	100	All	G	4539.89	44	64
A62-130	101	All	G	4539.89	46	68
WEST DELTA AREA						
A62-131	27	All	O&G	5000	3	10
A62-132	102	All	O&G	5000	18	66

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
WEST DELTA AREA, SOUTH ADDITION						
A62-133	143	All	O&G	5000	19	108
A62-134	144	All	O&G	5000	18	116
A62-135	147	All	O&G	5000	21	120
A62-136	148	All	O&G	5000	22	90
SOUTH PASS AREA						
A62-137	35	1/	O&G	741.70 (est.)	3	46
A62-138	38	1/	O&G	4747.92 (est.)	4	40
A62-139	45	All	G	4999.96	8	70
A62-140	56	5/	O&G	2999.84 (est.)	6	70
MAIN PASS AREA						
A62-141	77 78	1/	O&G	4655.16 (est.)	3	44
A62-142	108	All	G	4994.55	40	2
A62-143	126	All	O&G	4994.55	22	10
A62-144	150	All	O&G	4994.55	11	68
MAIN PASS AREA, SOUTH AND EAST ADDITION						
A62-145	265	All	G	4994.55	43	70
A62-146	301	All	O	4999.96	13	70
A62-147	315	All	G	4999.96	17	80
BRETON SOUND AREA						
A62-148	39	1/	O&G	1237.38 (est.)	15	4
A62-149	40	1/	O&G	4877.30 (est.)	17	4
A62-150	41	All	O&G	4994.55	15	8
A62-151	42	1/	O&G	4551.84 (est.)	13	8
A62-152	43	1/	O&G	1994.55 (est.)	11	8
A62-153	54	N $\frac{1}{2}$ ; N $\frac{1}{2}$ SW $\frac{1}{4}$ ; N $\frac{1}{2}$ S $\frac{1}{2}$ SW $\frac{1}{4}$ ; SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ ; N $\frac{1}{2}$ SE $\frac{1}{4}$ ; N $\frac{1}{2}$ S $\frac{1}{2}$ SE $\frac{1}{2}$ ;	O&G	4448.27	9	10
A62-154	55	N $\frac{1}{2}$	O&G	2497.27	11	10
CHANDELEUR AREA						
A62-155	17	All	G	5000	32	4
A62-156	25	All	G	5000	40	20
A62-157	32	All	G	5000	39	20
A62-158	33	All	G	5000	42	4
A62-159	34	All	G	5000	45	4

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
VIOUCA KNOLL NH 16-7						
A62-160	24	All	O	5760	16	20
A62-161	68	All	O	5760	16	20
A62-162	864	All	O&G	5760	43	410
A62-163	865	All	O&G	5760	45	410
A62-164	908	All	O&G	5760	43	600
A62-165	909	All	O&G	5760	46	700
EWING BANK NH 15-12						
A62-166	304	All	G	3140.42	32	150
MISSISSIPPI CANYON NH 16-10						
A62-167	149	All	G	5611.56	11	220
GREEN CANYON NG 15-3						
A62-168	89	All	G	5760	102	200
A62-169	90	All	G	5760	101	140
A62-170	91	All	G	5760	100	220
A62-171	133	All	G	5760	105	250
A62-172	134	All	G	5760	104	200
A62-173	135	All	G	5760	103	250
A62-174	136	All	G	5760	102	350
A62-175	137	All	G	5760	101	400
A62-176	138	All	G	5760	98	450
A62-177	139	All	G	5760	96	400
A62-178	140	All	G	5760	95	350
A62-179	179	All	G	5760	106	500
A62-180	180	All	G	5760	105	500
A62-181	181	All	G	5760	104	700
A62-182	182	All	G	5760	100	500
A62-183	183	All	G	5760	99	500
A62-184	184	All	G	5760	98	450

#### DESTIN DOME NH 16-8

A62-185 through A62-221 have been deleted from this sale.

#### WEST CAMERON AREA, SOUTH ADDITION

A62-222 has been deleted from this sale.

#### MUSTANG ISLAND AREA (Formerly Tract 58-3)

A62-223 has been changed to Tract 62-76.

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
BRAZOS AREA (Formerly Tract 58-117)						
A62-224 has been changed to Tract 62-75.						
HIGH ISLAND AREA, SOUTH ADDITION (Formerly Tract 58-27)						
A62-225 has been changed to Tract 62-77.						
WEST CAMERON AREA (Formerly Tract 58-31)						
A62-226	69	S½	G	2500	14	11
SHIP SHOAL AREA (Formerly Tract 58-79)						
A62-227	171	All	O&G	5000	60	30
SOUTH TIMBALIER AREA (Formerly Tract 58-84)						
A62-228	34	All	O&G	3772.18	14	14
WEST DELTA AREA (Formerly Tract 58-88)						
A62-229	78	All	O&G	5000	14	45
WEST CAMERON AREA, SOUTH ADDITION (Formerly Tract 58A-34)						
A62-230	575	All	G	5000	87	65
SOUTH MARSH ISLAND AREA (Formerly Tract 58A-49)						
A62-231	26	All	O&G	5000	37	27
SOUTH MARSH ISLAND AREA, NORTH ADDITION (Formerly 58-70)						
A62-232	235	6/	O&G	3633.65	24	5
MAIN PASS AREA (Formerly Tract 58A-103)						
A62-233	123	All	O&G	4994.55	23	40

1/ That portion of the lease block which is more than three geographical miles seaward from the line described in the supplemental decree of the U.S. Supreme Court, June 16, 1975 (United States vs. Louisiana, 422 U.S. 13).

2/ That portion of the lease block located landward of a line three marine leagues seaward of a line extending from a point on Shell Keys at a latitude 29°24'32.15"N., longitude 91°51'16.59"W., (X = 1,834,019.00, Y = 270,301.00), northwesterly in a straight line to Tigre Point at latitude 29°32'23.13"N., longitude 92°14'57.15"W., (X = 1,708,756.00, Y = 318,661.00). The coordinates used refer to the Louisiana Plane Coordinate System, South Zone.

- 3/ That portion of the lease block which is more than three geographical miles seaward from the line described in the supplemental decree of the U.S. Supreme Court, June 16, 1975 (United States vs. Louisiana, 422 U.S. 13) excluding the S $\frac{1}{2}$ SE $\frac{1}{4}$ .
- 4/ That portion of the lease block which is more than three geographical miles seaward from the line described in the supplemental decree of the U.S. Supreme Court, June 16, 1975 (United States vs. Louisiana, 422 U.S. 13) excluding the S $\frac{1}{2}$ S $\frac{1}{2}$ .
- 5/ That portion of the lease block located landward of a line which is more than three geographical miles seaward from the line described in the supplemental decree of the U.S. Supreme Court, December 13, 1965, United States vs. Louisiana No. 9 Original (382 U.S. 288).
- 6/ A portion of Block 235, OCS Leasing Map, South Marsh Island Area, North Addition, Louisiana Map No. 3D, described as follows:

Beginning at the northwest corner of Block 235, the coordinates of which referred to the Louisiana (Lambert) Coordinate System, are X = 1,765,446.562 and Y = 246,149.987;

From the initial corner,

South	8,033.742 ft. to X = 1,765,446.562, Y = 238,116.245
S.68°53'24"E.	15,819.70 ft. to X = 1,780,204.612, Y = 232,418.690
North	9,981.284 ft. to X = 1,780,204.612, Y = 244,400.00
N.56°36'22"W.	3,179.53 ft. to X = 1,777,550.00 , Y = 246,149.987
West	12,103.483 ft. to the point of beginning.

The position of the corners and direction of the lines are referred to the Louisiana (Lambert) Coordinate System (South Zone).

Notes: G = gas prone; O = oil prone; O&G = oil and gas prone.

PROPOSED TRACT LIST  
OCS SALE NO. 62

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
SOUTH PADRE ISLAND AREA, EAST ADDITION						
62-1	A-64	All	G	5760	39	58
62-2	A-65	All	G	5760	42	64
62-3	A-70	All	G	5760	42	62
62-4	A-71	All	G	5760	39	58
NORTH PADRE ISLAND AREA						
62-5	946	All	G	5760	16	32
62-6	966	All	G	5760	15	32
MUSTANG ISLAND AREA						
62-7	791	All	G	5760	16	28
62-8	800	All	G	5760	15	28
62-9	A-22	All	G	5760	35	62
62-10	A-31	All	G	5760	36	66
MUSTANG ISLAND AREA, EAST ADDITION						
62-11	A-124	All	G	5760	54	120
62-12	A-128	All	G	5760	57	142
62-13	A-129	All	G	5760	56	120
MATAGORDA ISLAND AREA						
62-14	528	All	G	5760	13	22
62-15	568	All	G	5760	18	24
62-16	639	All	G	5760	22	32
62-17	640	All	G	5760	23	34
62-18	649	All	G	5760	24	36
62-19	653	All	G	5760	19	28
62-20	654	All	G	5760	17	26
62-21	668	All	G	5760	19	30
62-22	685	All	G	5760	20	30
62-23	701	All	G	5760	22	32
62-24	712	All	G	5760	25	38
BRAZOS AREA						
62-25	449	1/	G	2270 (est.)	11	20
62-26	450	1/	G	5695 (est.)	12	20
62-27	475	All	G	5760	15	22
62-28	501	All	G	5760	30	32
62-29	502	All	G	5760	31	32

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
BRAZOS AREA (continued)						
62-30	530	All	G	5760	16	24
62-31	578	All	G	5760	32	36
62-32	A-7	All	G	5760	34	36
62-33	A-39	All	G	5760	34	44
62-34	A-40	All	G	5760	38	42
62-35	A-41	All	G	5760	36	42
GALVESTON AREA						
62-36	253	All	G	5760	15	16
62-37	272	All	G	5760	16	18
62-38	301	All	G	5760	17	10
62-39	302	All	G	5760	16	10
62-40	303	All	G	5760	13	10
62-41	304	1/	G	5315 (est.)	12	18
62-42	392	All	G	5760	25	28
62-43	421	All	G	5760	27	30
62-44	426	All	G	5760	29	32
62-45	427	All	G	5760	28	32
62-46	A-100	All	G	5760	60	46
HIGH ISLAND AREA						
62-47	49	All	G	5760	17	12
62-48	50	All	G	5760	15	12
62-49	72	N <sup>1</sup> / <sub>2</sub> ; SE <sup>1</sup> / <sub>4</sub>	G	4320	20	10
62-50	94	All	G	5760	14	14
62-51	108	All	G	5760	16	14
62-52	161	E <sup>1</sup> / <sub>2</sub> ; NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> ; G SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> ; NE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> ; S <sup>1</sup> / <sub>2</sub> SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> ; SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub>	G	3690	27	16
62-53	200	All	G	5760	31	14
62-54	201	All	G	5760	33	18
HIGH ISLAND AREA, SOUTH ADDITION						
62-55	A-417	All	G	5760	78	48
62-56	A-437	All	G	5760	71	46
62-57	A-438	All	G	5760	73	46
62-58	A-439	All	G	5760	75	48
62-59	A-440	All	G	5760	77	50
62-60	A-444	All	G	5760	81	54
62-61	A-445	All	G	5760	79	52
62-62	A-454	All	G	5760	62	44
62-63	A-455	All	G	5760	60	42
62-64	A-470	All	G	5760	86	62
62-65	A-472	All	G	5760	82	56

Tract	Block	Description	Reserve	Acreage	Distance From Shore (nmi)	Water Depth (m)
HIGH ISLAND AREA, SOUTH ADDITION (continued)						
62-66	A-543	All	G	5760	94	72
62-67	A-569	All	G	5760	99	86
62-68	A-576	All	G	5760	101	94
62-69	A-578	All	G	5760	96	100
HIGH ISLAND AREA, EAST ADDITION, SOUTH EXTENSION						
62-70	A-267	All	G	5760	78	44
62-71	A-282	All	G	5760	85	54
CORPUS CHRISTI NG 14-3						
62-72	700	All	G	5760	71	420
62-73	743	All	G	5760	70	450
62-74	744	All	G	5760	73	470
BRAZOS AREA (Formerly Tracts 58-117 and A62-224)						
62-75	438 & 439	Federal Portion	G	5055	11	18
MUSTANG ISLAND AREA (Formerly Tracts 58-3 and A62-223)						
62-76	738	All	G	5760	43	40
GALVESTON AREA (Formerly Tract 58A-15)						
62-77	241	N½	G	2880	14	18
HIGH ISLAND AREA, SOUTH ADDITION (Formerly Tracts 58-27 and A62-225)						
62-78	A-549	All	G	5760	158	82
HIGH ISLAND AREA, EAST ADDITION, SOUTH EXTENSION						
(Formerly Tract 58A-115)						
62-79	A-374	All	G	5760	102	115
(Formerly Tract 58A-118)						
62-80	A-385	All	G	5760	98	110

1/ That portion of the lease block seaward of the Three Marine League Line.

Note: G = gas prone.



**APPENDIX C**

**ARCHAEOLOGICAL  
REPORT STANDARDS**



## APPENDIX C. STANDARDS FOR ADEQUATE ARCHEOLOGICAL ASSESSMENT

The cultural resource assessment, signed by the marine survey archeologist, shall include:

1. Prehistoric site potential within the survey area based on:

- a) review of existing literature on the terminal Pleistocene and Holocene geologic processes in the area, and marine and coastal prehistory.
- b) potential for site occurrence based on the existence of bottom and subbottom geologic features which would have been conducive for prehistoric usage, the general age of such features, and periods during which the features would have been available for prehistoric exploitation; the probable depositional environment of the Holocene and late Pleistocene sediments and their archeological potentials;
- c) potential for site preservation in terms of historic and prehistoric marine processes;
- d) potential for identification and evaluation of sites based on depth (below the mudline) in light of current technology.

2. Historic cultural resource site potential including:

- a) a records search for reported shipwreck locations of the subject and adjacent block(s);
- b) a list of magnetic anomalies and side scan sonar contacts corrected for sensor offset;
- c) an analysis of unidentified magnetic anomalies and side scan sonar contacts and anomaly clusters in terms of their potential as shipwreck distributions;
- d) an analysis of correlations between magnetic anomalies and known ferromagnetic sources.

3. Conclusions:

- a) identification of, or statement of potential for, cultural resources in the survey area;
- b) recommendations either for avoidance or for further archeological investigations;
- c) conclusions and recommendations shall be supported and integrated with the analysis and supported.



## APPENDIX E

### BIOLOGICAL OPINIONS



REGIONAL MAIL  
FISHERIES SERVICE  
St. Petersburg, Florida  
RECEIVED

MAR 29 1979

APR 2 - 1979

ROUTING

FSE1

Mr. Donald P. Truesdell  
Deputy Assistant Director  
Department of the Interior  
Bureau of Land Management  
Washington, D.C. 20240

Dear Mr. Truesdell:

This letter is in response to your November 28, 1978, request for a formal consultation and to the January 30, 1979, request from Mr. J. R. Baisley, U.S. Geological Survey, for a joint consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA), as amended, regarding endangered and threatened whales and turtles in the entire Gulf of Mexico Outer Continental Shelf (OCS) oil and gas leasing areas. Enclosed is the biological opinion resulting from the consultation which states that the identified activities are not likely to jeopardize the continued existence of endangered and threatened species or result in the destruction or adverse modification of habitat critical to them.

The Bureau of Land Management should reinstitute consultation if new information becomes available on possible impacts of the proposed activities on endangered or threatened species or their habitats, if modifications are made in these activities, or if a new species is listed which may be affected by these activities.

We look forward to continued cooperation in future consultations.

Sincerely yours,

*Jack W. Leitzell*  
for Terry L. Leitzell  
Assistant Administrator  
for Fisheries

Enclosure

bcc: USGS-Baisley

cc: F, GCF, ESE, SWFC, FAK, NWAFC, FSW-Edmondson, F6-Aron, GCF  
(all w/enclosure)

F6:TFLoughlin:634-7461:3/20/79:pvt

## ENDANGERED SPECIES ACT

### Section 7 Consultation - Threshold Examination

Agencies: Bureau of Land Management (BLM) and U.S. Geological Surevey (USGS)

Activity: Gulf of Mexico lease sales, exploration, transportation, termination, development and production.

Consultation Conducted by: National Marine Fisheries Service.

#### Results of Threshold Examination:

Under Section 7 of the Endangered Species Act of 1973 (the "Act"), as amended, each Federal agency must ensure that any action authorized, funded, or carried out by such agency does not jeopardize an endangered or threatened species. Under the Section 7 consultation process established by the Act, the Secretary of Commerce is required to provide the Federal agency concerned an opinion detailing how the proposed agency action affects any threatened or endangered species within the Department's jurisdiction or the critical habitat of such species. In addition, the Secretary must suggest reasonable and prudent alternatives which would avoid jeopardizing the continued existence of such species or adversely modifying its critical habitat and which can be undertaken by the agency in implementing its action.

By letter of November 28, 1978, the Bureau of Land Management, Department of the Interior, requested initiation of a regional Section 7 consultation with the National Marine Fisheries Service on the Outer Continental Shelf oil and gas leasing program in the Gulf of Mexico.

As part of the consultation process, a meeting was held in New Orleans, Louisiana, on February 9, 1979 with representatives of the Bureau of Land Management, the U.S. Geological Survey, and the National Marine Fisheries Service.

Formal consultation was requested for the following species:

Humpback whale	<u>Megaptera novaeangliae</u>
Right whale	<u>Eubalaena glacialis</u>
Sei whale	<u>Balaenoptera borealis</u>
Blue whale	<u>Balaenoptera musculus</u>
Finback whale	<u>Balaenoptera physalus</u>
Sperm whale	<u>Physeter catodon</u>
Leatherback turtle	<u>Dermochelys coriacea</u>
Hawksbill turtle	<u>Eretmochelys imbricata</u>

Kemp's Ridley turtle  
Green turtle  
Loggerhead turtle

Lepidochelys kempii  
Chelonia mydas  
Caretta caretta

Eastern Gulf of Mexico:

These Federal actions involve the offering of 116 tracts for leasing for the extraction of oil and gas. The tracts are located on the Outer Continental Shelf in areas located west, south, and east of that portion of the states of Florida, Alabama, Mississippi, and Louisiana that border on the Gulf of Mexico. The largest portion of the proposed lease offering is located off the coast of Florida.

With two exceptions, each tract contains 5,760 acres (2331.04 hectares). Tract 65-32 contains 5454.72 acres and Tract 65-71 contains 5134.56 acres.

The total area offered in all tracts amounts to 667,229.28 acres (270,023.99 hectares). The tracts are located between 10 statute miles (16 kilometers) to 119 statute miles (190 kilometers) from shore. The water depths range from 60 feet (18 meters) to 1,150 feet (350 meters). Thirty-three of the tracts are located in areas where the water depth is equal to or greater than 200 meters.

Seventy-five of the tracts proposed for offering are believed to have potential for oil and gas production, and the remaining 41 tracts are believed to be potentially oil productive.

No commercial oil and gas production has been found on the Outer Continental Shelf in this region and no marine oil and gas production has been established in this portion of the Gulf of Mexico; therefore, no facilities for the production and transportation of crude and natural gas have been installed on the Outer Continental Shelf in the vicinity of the tracts proposed for leasing.

The U.S. Geological Survey estimates that between 15 and 150 million barrels of oil and 20 - 175 billion cubic feet of natural gas may be produced as a result of this proposed sale. The production rates may be estimated at between 2,500 and 24,000 barrels of oil per day and between 4 and 32 million cubic feet of gas per day. The daily rates are estimated as rates applicable to when development is complete and production stabilizes.

A. Exploration:

Following the awarding of leases, the successful bidders can be expected to drill exploratory wells in order to locate and delineate the areal extent of oil and gas deposits. The most likely number of exploratory wells to be drilled would be 75. These wells will probably be drilled by moveable offshore drilling units.

#### B. Development and Production:

After the completion of exploratory drilling, platforms would be designed, constructed, and placed in position. Development wells will be drilled from platforms. The most likely number of platforms to be installed is 25, and the most likely number of development wells is 225. Underwater completions may also be utilized. Support facilities for this activity could be located in the Tampa, Panama City, or Mobile areas. The expected production life is 25 years.

#### C. Transportation:

The most likely method of transportation that will result from the proposed sale will be pipeline transportation of natural gas to shore points in the vicinity of existing onshore natural gas pipelines.

The most likely system for the transport of crude oil would be pipeline transport to onshore storage facilities and transportation from these terminals to existing refineries by surface marine transport. The most likely pipeline mileage that may be installed is 700 miles. Probable destination points and locations of oil terminal facilities and gas processing plants are the Manatee/Tampa area and the Mobile/Pensacola area.

A possible alternative gathering and transportation system could include the provision of offshore storage on the OCS and direct transportation from these facilities to existing refineries.

#### D. Termination:

Title 43, 3307.3-4 and 3307.3-6 provide for the removal of all structures when no longer required for operations. The removal must be completed within a period of one year following the expiration of the lease, and the structures must be removed to a sufficient depth beneath the surface of the waters to prevent them from being a hazard to navigation and the fishing industry.

OCS Order No. 3 requires that all casing and piling shall be severed and removed to at least 15 feet below the Gulf floor and the location shall be dragged to clear the well site of any obstructions.

This proposed action must be viewed as one part of a continuing activity that has been underway since the 1940's. Although primary emphasis has been placed on this particular sale, it should be put into the perspective of an on-going offshore oil and gas development process. As of June 23, 1977, there have been 34 OCS oil and gas (and five OCS sulfur and salt) lease sales on submerged lands in Federal areas of the Gulf of Mexico.

Currently, the Bureau of Land Management holds 495 permits on the OCS resulting in 5,862 miles of offshore pipelines. These figures are as of October 31, 1977, and exclude 12 pending applications.

As production declines in existing areas, much of the equipment, transportation facilities, and personnel can be used for new areas of activity. As existing areas of production decline, the pipelines in place can be used for new production areas, adjacent or further from shore, reducing the number of pipelines necessary to transport production from new areas to shore. This latter event has already been exercised in some areas of offshore Louisiana. Likewise, a reduction in quantity of onshore facilities, such as treatment plants, refineries, storage facilities, etc., is made possible by utilizing existing facilities, equipment, and technology.

Proposed OCS planning schedules are developed in order to project the timing, size, and location of specific sales for an OCS leasing program. The goal of the proposed schedule is to provide for orderly development of OCS oil and gas in order to maintain an adequate contribution of OCS production to the national supply and to provide early information concerning areas proposed for leasing activities.

#### Western and Central Gulf of Mexico:

These proposed lease sales would provide for the orderly and timely development of oil and gas reserves expected to occur on 115 tracts on the Outer Continental Shelf (OCS) in Federal waters in the Gulf of Mexico offshore of Texas, Louisiana, Mississippi and Alabama.

These tracts include approximately 545,255.24 acres and range from 3 to 165 nautical miles (6-189 kilometers) from shore in water depths of 6 to 500 meters. Approximately fifty-eight percent of these tracts are gas prone, four percent are oil prone, and thirty-eight percent are both oil and gas prone.

Surveys indicating seismic refraction, seismic reflection, gravity, magnetics, bright spot technology, and stratigraphic correlation are collected before and after leasing to assist in the determination, location, and magnitude of petroleum resources. Surface vessels of the 50 to 300 ton class are utilized to perform geophysical surveys. In general, seismic surveys record the behavior of shock waves through various rock formations. This information is used to determine the presence of salt domes, folds, faults and sediment thickness.

#### A. Exploration:

After a lease has been issued, shallow surveys defining geologic hazards, bottom stability, cultural resources and other conditions which might affect exploratory drill site locations are performed. Once a location has been selected, exploratory drilling begins. These drilling

operations are basically the same regardless of the type of mobile rig utilized (jack-up rigs, drillships or semi-submersibles). Initially, a drive pipe is installed along with a blowout preventer. The actual drilling process involves the use of introduced muds which acts as lubricants, coolants, and pressure controls. Cuttings or a mixture of mud and drilled materials are a product of the drilling process. Sixty to 160 exploratory wells may be drilled as a result of this action.

#### B. Development and Production:

When petroleum discoveries are made and the extent of a field has been determined, a plan of development is devised. As a result, 10 to 25 multi-well platforms may be established with the drilling of 60 to 150 production wells.

The production phase of OCS oil and gas operations consists of bringing the product to the surface and preparing it for transport. This phase of the operation may go on for as long as 20 years. Formation waters of reservoir brines are produced in the oil and gas production process.

#### C. Transportation:

The principal means of getting gas and oil resources in the Gulf of Mexico from production areas offshore to processing and storage locations onshore has been and will continue to be via pipelines. Additionally, the labor force, equipment and supplies needed to service the various stages of offshore operations are transported by crewboats, barges and helicopters. As a result of this proposed action, 100 to 200 miles of new pipeline may be laid. These lines would run from new production facilities offshore and connect with the existing pipeline system to onshore facilities. It is anticipated that no new pipelines to facilities onshore will be required.

#### D. Termination:

When a reservoir has been depleted to a level at which it cannot produce profitably, operations are terminated. According to industry estimates, with proper placement of wells and sufficient pipeline capacity, a gas reservoir could be drained in as little as 10 years. In contrast, some oil reservoirs have been producing for over 20 years.

OCS orders issued by the U.S. Geological Survey require wells to be plugged, the casing severed adequately below the mudline, the platform removed, and all obstructions cleared from the area. Major trunklines may be used for future production from adjacent areas, but smaller lines would probably be abandoned in place. Abandonment of pipelines consists of flushing the lines of entrained hydrocarbons by water, disposing of the water onshore, and severing the ends below the mudline.

## Endangered Species Impacts

### Whales:

The possible impacts on whales and their critical habitat from exploratory and development/production activities were given thorough consideration. These included the following:

1. Seismic - It is the opinion of the Consultation Team that no unfavorable impacts would result from seismic operations.
2. Oil Spills - Conceivably, a large oil spill occurring in the immediate vicinity of whales could be harmful because of the possible intake of oil through the blow hole, fouling of the baleen plates, and indirectly from the ingestion of oil contaminated food. However, endangered cetaceans are uncommon in the lease/sale area and are sighted only on rare occasions. Therefore, even if an oil spill occurred in the tract areas, it is unlikely that any endangered whales will be affected. In addition, there is no historical record of such an occurrence.

3. Boat traffic - Due to the migratory nature of whales, the small increase in boat traffic would have a minimal (non-measurable) impact.

### Turtles:

The following exploratory and production/development activities were reviewed to determine possible impacts on sea turtles and their critical habitat:

1. Seismic - None.
2. Oil spills - The effect of oil spills is not known. However, oil ingestion or physical contact by turtles, especially with the eyes and nostrils and particularly in hatchlings entrapped in a spill, could be lethal. Hatchling and juvenile turtles are believed to be passively distributed by surface currents, the same mechanism that spreads oil. None of the five species of sea turtles that are found in the Gulf of Mexico occur in concentrated numbers or assemblages in those waters, and oil spills in limited areas would not be expected to impact on more than a few individuals at sea. Oil spills, however, could have severe impacts on nesting beaches if washed ashore at nesting seasons. Therefore, every effort to minimize the potential for spills should be exercised.
3. Boat traffic - As with whales, the small increase in boat traffic would have a minimal impact on sea turtles.
4. Drilling - Platforms and pipelines may increase habitat by creating "live-bottom" topography. Turtles have been observed to feed on sessile organisms attached to platforms. During the period from mid-

summer to mid-fall, lights on drilling platforms near shore could attract hatchling turtles resulting in abnormal concentrations. These disoriented turtles would possibly be subjected to increased predation. It is recommended that monitoring of the effect of lights, particularly on hatchling loggerheads, be conducted to determine the significance of their impact.

Biological Determination and Need for Additional Information or Further Consultation:

After a careful review of the findings by the Consultation Team, it is my biological opinion that the proposed project is not likely to jeopardize the continued existence of the endangered or threatened species listed above or result in the destruction or adverse modification of habitats determined to be critical to them. This biological opinion is based on the general information in the EIS concerning possible effects of the proposed actions and does not relieve BLM or USGS of the continuing responsibility of reviewing their activities and programs in light of their Section 7 consultation should new information reveal impacts of the identified activities that may affect listed species or their habitats, or these activities are subsequently modified, or a new species is listed that may be affected.

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